Environment Canada
Environnement Canada

Environmental Conservation Services
du Service de la Conservation d l'environnement

Inland Waters Directorate

Western and Northern Region

SUMMARY OF WATER QUALITY DATA

FROM THE

ROCKY MOUNTAIN NATIONAL PARKS

(FOR THE PERIOD 1980 To 1981)

JULY 1984

PRESENTED TO: PARKS CANADA

BY: WATER QUALITY BRANCH

WQB-W&NR-84-2

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JULY 1984

PRESENTED TO: PARKS CANADA

PRESENTED BY: WATER QUALITY BRANCH
WESTERN AND NORTHERN
REGION

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I INTRODUCTION

Contained in this report are all data from joint studies undertaken by the Water Quality Branch, Inland Waters Directorate, Department of Environment and Parks Canada, Department of Environment in three Western Canada Rocky Mountain Parks during the period January 1980 to December 1981.

The data are presented in three sections, one for each of three parks included in the study. For ease in locating the results, the stations are presented in alphabetical order. The alphabetical index is presented on page three, together with the corresponding data processing number.

These data are stored in the computerized National Water Quality Data Bank (NAQUADAT) of the Water Quality Branch. Following are terms commonly used in the data output:

Data Processing Number - the twelve digit code assigned to each sampling site. The first two numerals of the code refer to the water type, followed by two letters which designate the province in which the site is located. The next two digits and two letters refer to the basin and sub-basin respectively, followed by a final four digit number.

Method Codes - the six digit code number shown at the top of each column to indicate the analytical method employed to determine that parameter. If the analytical method used was different from the one indicated on the headings, then the last three digits of the appropriate

method code appear beside the actual result. The last digit of the code indicates where the analytical determination was performed.

S in situ analysis
F field analysis
L laboratory analysis
P preserved in field; laboratory analysis
D filtered in field; laboratory analysis
R mean or median of laboratory analyzed replicates
G filtered and preserved in field; laboratory analysis
T mean or median of field filtered and preserved replicates; laboratory analyzed
U mean or median of field analyzed replicates
V mean or median of field filtered replicates; laboratory analysis
W mean or median of field preserved replicates; laboratory or field analysis

Terms and Units - Several units are employed to express the results. The more common ones are: usie/cm. This unit was formerly reported as umho/cm. As a result of the change to the metric system, the unit is now usie/cm (microsiemens/cm).

mg/l - milligrams per litre
ug/l - micrograms per litre
JTU - Jackson turbidity units
no/DL - number per 100 millitres
rel units - relative colour units
L - less than
Q - A "Q" preceding a result signifies that at least one of the values used in the computation of this result was reported as less than the detection limit. In the computation of calculated parameters, analytical values reported as "less than the detection limit" are interpreted as being equal to the numeric value of the detection limit.

INDEX OF STATIONS

BANFF NATIONAL PARK

Station	Data Processing Number
Bow River Basin:	
- Bow River approx 4.5 km above Canmore	00AL05BE0013
- Bow River at Hwy. #1 above Lake Louise	00AL05BA0011
North Saskatchewan River Basin:	
- North Saskatchewan River at Whirlpool Point	00AL05DA0001

JASPER NATIONAL PARK

- Athabasca River at Hwy. #93A, Athabasca Falls	00AL07AA0015
- Athabasca River at Hwy. #16 Bridge, below Confluence with Snaring River	00AL07AA0023

WATERTON LAKES NATIONAL PARKS

- Belly River at Hwy. #6	00AL05AD0060
- Waterton River at Hwy. #6 Bridge, near Waterton	00AL05AD0005

II

RESULTS FROM

BANFF NATIONAL PARK

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL08BE0013 LAT. 51D 7M 22S LONG. 115D 23M 12S
BOW RIVER ABOUT 4.5 KM ABOVE CANMORE BELOW SE BOUNDARY OF BANFF NAT'L PARK ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02061F TEMP. WATER DEG. C.	02061L TEMP. WATER DEG. C.	02041F SPECIFIC CONDUCT. USIE/CM	02041L SPECIFIC CONDUCT. USIE/CM	10301F PH PH UNITS	10301L PH PH UNITS	02073F TURBIDITY JTU	02073L TURBIDITY JTU
80-01-08	1525	417	.5	18.3	265.	378.	8.3	8.0	.7	.4
80-02-05	1535	417	1.0	18.8	--	372.	8.1	7.9	1.3	8.5
80-03-05	1300	417	1.0	22.2	340.	401.	8.2	8.1	.8	3.6
80-04-23	1030	417	5.0	20.0	310.	347.	8.4	8.1	--	.4
80-06-14	0900	417	5.5	17.6	204.	234.	8.2	8.0	2.4	2.0
80-06-18	0910	417	8.5	17.6	207.	223.	7.7	8.1	9.2	--
80-07-29	1150	417	13.0	21.6	--	235.	8.3	8.5	6.0	4.2
80-08-20	0845	417	8.0	18.9	230.	257.	8.1	8.1	1.2	2.3
80-08-17	1010	417	6.0	18.0	250.	276.	7.9	8.0	.8	.9
80-10-07	1820	417	10.0	19.5	251.	280.	8.1	8.4	.7	.8
80-11-12	1145	417	0.0	19.3	291.	335.	8.3	8.0	.7	.8
80-12-15	1145	417	2.0	21.3	300.	355.	8.0	8.1	.6	1.0
81-01-14	1055	417	0.0	20.1	313.	362.	7.8	8.0	.2	1.1
81-02-25	1030	417	.5	22.5	318.	368.	8.3	8.0	.4	.7
81-03-25	0830	417	.5	18.5	345.	364.	8.2	8.0	.8	1.5
81-04-23	0820	417	5.0	20.8	288.	369.	8.3	8.1	1.0	1.5
81-06-13	0820	417	4.0	15.4	295.	219.	8.2	8.1	.9	4.0
81-06-17	1200	417	6.5	17.3	239.	245.	8.0	8.1	1.1	2.7
81-07-06	0845	417	6.0	16.2	198.	201.	8.0	8.1	25.0	8.5
81-08-12	0720	417	11.0	24.8	240.	247.	8.0	8.2	8.0	2.6
81-09-16	0835	417	7.5	23.0	257.	268.	8.1	8.2	2	1.8
81-10-06	1350	417	5.5	23.4	288.	298.	8.3	8.3	4.2	.8
81-11-03	1415	417	5.5	16.6	320.	332.	8.3	8.3	.6	.9
81-12-09	0830	417	0.0	21.8	333.	338.	8.1	8.0	.4	.7

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02021L COLOUR TRUE REL. UNITS	10401L RESIDUE NONFILTR. MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	08717G CHLORO-PHYLL A MG/L	36002F COLIFORMS TOTAL MF NO/DL	36012F COLIFORMS FECAL MF NO/DL	36103F FECAL STREP. MF NO/DL
80-01-08	1525	417	5.	--	1.	--	--	3	3	6.
80-02-05	1535	417	5.	--	L1.	--	--	14	L2.	L2.
80-03-05	1300	417	10.	--	2.	--	--	51	L2	30.
80-04-23	1030	417	5.	--	4.	--	.001	97	6.	6.
80-06-14	0900	417	10.	--	4	--	.001	136	8	6.
80-06-18	0910	417	10.	--	37.	--	.001	390.	296.	66.
80-07-29	1150	417	10.	--	5.	--	--	--	--	--
80-08-20	0845	417	5.	--	3.	--	.001	38.	6	6.
80-08-17	1010	417	10.	--	3.	--	L.001	248.	10.	2.
80-10-07	1820	417	10.	--	1.	--	002	2	2	L2
80-11-12	1145	417	10.	--	L1.	--	.001	204.	152.	50.
80-12-15	1145	417	30.	--	4.	--	L.001	70.	8.	20.
81-01-14	1055	417	5.	--	2.	--	L.001	38.	2.	86.
81-02-25	1030	417	L5.	--	2.	--	L.001	--	174.	61.
81-03-25	0830	417	--	5.	1.	--	L.001	4300.	--	40.
81-04-23	0820	417	--	5.	2.	--	.001	12.	8.	4.
81-06-13	0820	417	--	5.	2.	--	L.001	18.	4.	L2
81-06-17	1200	417	--	5.	9.	--	L.001	49.	6.	2.
81-07-06	0845	417	--	5.	13.	--	.001	310.	20.	10.
81-08-12	0720	417	--	5.	4.	--	.001	140.	26.	L2
81-09-16	0835	417	--	5.	2.	--	L.001	44.	8.	L2.
81-10-06	1350	417	--	5.	L1.	--	L.001	44.	2.	4.
81-11-03	1415	417	--	10.	1.	--	.001	54.	6.	4.
81-12-09	0830	417	--	5.	L1.	--	L.001	44	6.	2.

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05BE0013 LAT. 51D 7M 22S LONG. 115D 23M 12S
BOW RIVER ABOUT 4.5 KM ABOVE CANMORE BELOW SE BOUNDARY OF BANFF NAT'L PARK ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08101H OXYGEN DISSOLVED O2 MG/L	08301L CARBONATE (CALCD.) CO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	08201L BICARBONT. (CALCD.) HCO3 MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	20103L CALCIUM DISSOLVED CA MG/L	12102L MAGNESIUM DISSOLVED MG MG/L	10802L HARDNESS TOTAL (CALCD.) CACO3 MG/L
80-01-08	1525	417	12.1	0.	0.0	152.	125.0 06L	49.20	15.8	187.9
80-02-06	1535	417	12.9	0.	0.0	146.	120.0 06L	46.20	17.8	188.6
80-03-05	1300	417	9.6	0.	0.0	149.	122.0 06L	46.50	17.0	186.1
80-04-23	1030	417	11.5	0.	0.0	146.	120.0	43.70	14.4	168.4
80-05-14	0900	417	9.3	0.	0.0	109.	89.0	28.10	10.5	115.9
80-06-18	0810	417	10.3	0.	0.0	105.	86.0	27.60	9.3	107.6
80-07-29	1150	417	10.0	2.	1.6	107.	91.0	29.00	10.0	113.6
80-08-20	0845	417	10.4	0.	0.0	118.	97.0	33.80	11.5	131.7
80-09-17	1010	417	10.7	0.	0.0	127.	104.0	33.50	12.8	136.4
80-10-07	1820	417	10.5	0.	.1	124.	102.0	35.10	12.1	137.5
80-11-12	1145	417	14.0	0.	0.0	144.	118.0	41.80	14.7	164.9
80-12-15	1145	417	10.6	0.	0.0	144.	118.0	43.30	15.0	169.9
81-01-14	1085	417	11.4	0.	0.0	154.	126.0	45.20	15.2	175.4
81-02-25	1030	417	11.1	0.	0.0	152.	125.0	45.10	16.0	178.5
81-03-25	0830	417	12.3	0.	0.0	150.	123.0	45.70	15.3	177.1
81-04-23	0820	417	10.8	0.	0.0	152.	125.0	45.50	17.5	185.7
81-05-13	0820	417	10.5	0.	0.0	149.	122.0	42.80	14.1	164.9
81-06-17	1200	417	10.3	0.	0.0	117.	96.0	30.80	11.0	122.2
81-07-08	0845	417	10.6	0.	0.0	104.	85.0	25.90	9.3	103.0
81-08-12	0720	417	9.2	0.	0.0	121.	99.0	32.40	11.0	126.2
81-09-16	0835	417	9.4	0.	0.0	124.	102.0	33.70	11.9	133.1
81-10-06	1350	417	11.6	0.	0.0	137.	112.0	37.80	13.4	149.6
81-11-03	1415	417	11.7	0.	0.0	148.	120.0	45.00	15.5	176.2
81-12-08	0830	417	11.4	0.	0.0	156.	128.0	46.90	15.5	180.9

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	00201L TOTAL DISSOLVED SOLIDS (CALCD.) MG/L	11103L SODIUM DISSOLVED NA MG/L	19103L POTASSIUM DISSOLVED K MG/L	17206L CHLORIDE DISSOLVED CL MG/L	09105L FLUORIDE DISSOLVED F MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	14105L SILICA REACTIVE SIO2 MG/L	15104P SULFIDE DISSOLVED S MG/L
80-01-08	1525	417	200.	1.9	.4	1.0	.15	52.	4.7	--
80-02-06	1535	417	194.	1.2	.3	.8	.08	51.	4.6	--
80-03-05	1300	417	198.	2.0	.5	1.7	.17	50.	5.2	--
80-04-23	1030	417	180.	1.7	.4	2.0	.12	42.	4.1	--
80-05-14	0900	417	118.	.7	.3	.7	06	20.	3.5	--
80-06-18	0810	417	112.	.6	.2	.6	06	19.	3.2	--
80-07-29	1150	417	120.	.7	.3	.7	06	22.	2.8	--
80-08-20	0845	417	134.	2.3	.3	.8	.06	24.	3.4	--
80-09-17	1010	417	144.	1.1	.3	.9	.09	29.	3.6	--
80-10-07	1820	417	138.	1.0	.3	.9	.09	24.	3.4	--
80-11-12	1145	417	173.	1.4	.3	1.2	.12	39.	4.1	--
80-12-15	1145	417	177.	1.5	.4	1.4	.11	40.	4.4	--
81-01-14	1085	417	185.	.8	.5	1.6	.13	42.	4.7	--
81-02-25	1030	417	189.	1.5	.4	1.7	.15	45.	4.5	--
81-03-25	0830	417	185.	1.6	.4	1.5	13	43.	4.3	--
81-04-23	0820	417	191.	1.4	.4	1.6	.12	45.	4.1	--
81-05-13	0820	417	171.	1.8	.3	1.7	.08	33.	4.5	--
81-06-17	1200	417	126.	1.3	.3	.9	L.05	20.	3.8	--
81-07-08	0845	417	106.	.8	.2	.6	L.05	15.	3.1	--
81-08-12	0720	417	129.	.7	.3	.7	.07	21.	3.4	--
81-09-16	0835	417	138.	1.0	.3	1.0	.08	26.	3.2	--
81-10-06	1350	417	155.	1.2	.4	1.1	.11	30.	3.8	--
81-11-03	1415	417	182.	4.2	.3	1.0	.15	40.	4.0	--
81-12-08	0830	417	191.	1.5	.4	1.6	.12	44.	4.6	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05BB0013 LAT. 510 7M 22S LONG. 115D 23M 12S
BOW RIVER ABOUT 4.5 KM ABOVE CANMORE BELOW SE BOUNDARY OF BANFF NAT'L PARK ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15405L PHOSPHORUS TOTAL P MG/L	15103D PHOSPHORUS TOTAL DISSOLVED P MG/L	15901L PHOSPHORUS PARTICULATE (CALCD.) P MG/L	07110D NITROGEN DISSOLVED NO3 & NO2 N MG/L	07851D NITROGEN DISSOLVED N MG/L	07851L NITROGEN DISSOLVED N MG/L	07902L NITROGEN PARTICUL. N MG/L	07603L NITROGEN TOTAL (CALCD.) N MG/L
80-01-06	1525	417	.013	.013 03L	0.000	.08 10L	--	.12	.04	.16
80-02-05	1535	417	.008	.003 03L	.005	.05 10L	--	.09	.04	.13
80-03-06	1300	417	.023	.023 03L	0.000	.14 10L	--	.22	.06	.28
80-04-23	1030	417	.015	--	--	.10	.13	.16	.07	.23
80-05-14	0900	417	.009	.004	.005	.07	.11	.12	L.01	0.13
80-06-18	0910	417	.190	L.003	0.187	.04	.07	.06	.17	.23
80-07-29	1150	417	--	.004 03L	--	.03 10L	--	.05	.05	.10
80-08-20	0845	417	.008	.007	.001	.04	.07	.07	.08	.15
80-09-17	1010	417	.008	L.003	0.005	.06	.13	.09	.03	.12
80-10-07	1820	417	.005	L.003	0.002	.04	.09	.10	.18	.28
80-11-12	1145	417	.008	.007	.001	.10	.11	.11	.38	.49
80-12-15	1145	417	.015	.011	.004	.12	.17	.18	.04	.22
81-01-14	1085	417	.014	.009	.005	.13	.15	.17	.04	.21
81-02-25	1030	417	.080	.007	.073	.11	.18	.18	.11	.29
81-03-25	0830	417	.013	.006	.007	.10	.16	.16	.07	.23
81-04-23	0820	417	.019	.011	.008	.08	.13	.18	.02	.20
81-05-13	0820	417	.006	.003	.003	.06	.10	.10	.03	.13
81-06-17	1200	417	.008	.003	.005	.05	.09	.08	.02	.10
81-07-08	0845	417	.018	L.003	0.015	.05	.09	.09	.06	.15
81-08-12	0720	417	.011	L.003	0.008	.05	.09	.08	.03	.11
81-08-18	0835	417	L.003	L.003	00.000	.06	.08	.05	L.01	0.06
81-10-06	1350	417	.005	.003	.002	.04	.08	.08	L.01	0.09
81-11-03	1415	417	.013	.005	.008	.05	.08	--	L.01	--
81-12-08	0830	417	.008	.003	.005	.10	.15	.15	L.01	0.16

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07506P NITROGEN TOTAL AMMONIA N MG/L	15256D PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L	06152L CARBON DISSOLVED INORGANIC C MG/L	06104L CARBON DISSOLVED ORGANIC C MG/L	06902L CARBON ORGANIC PARTICUL. C MG/L	06002L CARBON TOTAL ORGANIC (CALCD.) MG/L	03301P LITHIUM EXTRBLE. LI MG/L	13302P ALUMINUM EXTRBLE. AL MG/L
80-01-06	1525	417	--	--	30.0	1.0	.19	1.2	--	--
80-02-05	1535	417	--	--	26.0	1.0	.20	1.2	--	--
80-03-06	1300	417	--	--	23.0	L1.0	.16	Q1.2	--	--
80-04-23	1030	417	--	--	--	2.0 04D	--	--	--	--
80-05-14	0900	417	--	--	--	2.0 04D	--	--	--	--
80-06-18	0910	417	--	--	--	1.0 04D	--	--	--	--
80-07-29	1150	417	--	--	--	L1.0	.41	Q1.4	--	--
80-08-20	0845	417	--	--	--	L1.0 04D	.27	Q1.3	--	--
80-09-17	1010	417	--	--	--	L1.0 04D	.09	Q1.1	--	--
80-10-07	1820	417	--	--	--	L1.0 04D	.19	Q1.2	--	--
80-11-12	1145	417	--	--	--	L1.0 04D	.10	Q1.1	--	--
80-12-15	1145	417	--	--	--	L1.0 04D	.23	Q1.2	--	--
81-01-14	1085	417	--	--	--	L1.0 04D	--	--	--	--
81-02-25	1030	417	--	--	--	L1.0 04D	.27	Q1.3	--	--
81-03-25	0830	417	--	--	--	.7	.41	1.1	--	--
81-04-23	0820	417	--	--	--	--	.17	--	--	--
81-05-13	0820	417	L.1	--	--	1.5	.27	1.8	--	--
81-06-17	1200	417	L.1	--	--	1.2	.37	1.6	--	--
81-07-08	0845	417	L.1	--	--	.9	1.10	2.0	--	--
81-08-12	0720	417	L.1	--	--	.4	.28	.7	--	--
81-08-18	0835	417	L.1	--	--	.8	.18	1.0	--	--
81-10-06	1350	417	L.1	--	--	.7	.08	.8	--	--
81-11-03	1415	417	L.1	--	--	1.8	.18	1.8	--	--
81-12-08	0830	417	L.1	--	--	1.0	.11	1.1	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05BE0013 LAT. 51D 7M 22S LONG. 115D 23M 12S
BOW RIVER ABOUT 4.5 KM ABOVE CANMORE BELOW SE BOUNDARY OF BANFF NAT'L PARK ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	05105L BORON DISSOLVED B MG/L	33104D ARSENIC DISSOLVED AS MG/L	34102D SELENIUM DISSOLVED SE MG/L	25304P MANGANESE EXTRBLE. MN MG/L	25104G MANGANESE DISSOLVED MN MG/L	26304P IRON EXTRBLE. FE MG/L	26104G IRON DISSOLVED FE MG/L	80011P MERCURY TOTAL HG UG/L
80-01-08	1525	417	L.02	L.0005 04L	L.0005 02L	L.01	--	.08	--	L.02
80-02-05	1535	417	L.02	L.0005 04L	L.0005 02L	L.01	--	.05	--	L.02
80-03-05	1300	417	.04	L.0005 04L	L.0005 02L	L.01	--	.08	--	L.02
80-04-23	1030	417	.02	L.0005 04L	L.0005 02L	--	L.01	--	L.04	L.02
80-05-14	0900	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-06-18	0810	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-07-29	1150	417	.04	L.0005 04L	L.0005 02L	--	--	--	--	L.02
80-08-20	0845	417	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
80-09-17	1010	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-10-07	1620	417	L.02	L.0005	L.0005	--	L.01	--	L.04	.02
80-11-12	1145	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-12-15	1145	417	.05	L.0005	L.0005	--	L.01	--	L.04	L.02
81-01-14	1085	417	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
81-02-25	1030	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-03-25	0830	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-04-23	0820	417	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
81-05-13	0820	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-06-17	1200	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-07-08	0845	417	.02	L.0005	L.0005	--	.01	--	L.04	L.02
81-08-12	0720	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-09-16	0835	417	.04 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-10-06	1350	417	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-11-03	1415	417	.04 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-12-09	0830	417	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	23302P VANADIUM EXTRBLE. V MG/L	23020P VANADIUM TOTAL RECOVERABLE VA MG/L	24302P CHROMIUM EXTRBLE. CR MG/L	27302P COBALT EXTRBLE. CO MG/L	27020P COBALT TOTAL RECOVERABLE CO MG/L	28302P NICKEL EXTRBLE. NI MG/L	28020P NICKEL TOTAL RECOVERABLE NI MG/L	47301P SILVER EXTRBLE. AG MG/L
80-01-08	1525	417	L.001	--	--	L.002	--	--	--	--
80-02-05	1535	417	L.001	--	--	L.002	--	--	--	--
80-03-05	1300	417	L.001	--	--	L.002	--	--	--	--
80-04-23	1030	417	--	002	--	--	.003	--	.004	--
80-05-14	0900	417	--	002	--	--	L.002	--	008	--
80-06-18	0810	417	--	L.001	--	--	.005	--	.006	--
80-07-29	1150	417	--	003	--	--	L.002	--	003	--
80-08-20	0845	417	--	L.001	--	--	L.002	--	L.002	--
80-09-17	1010	417	--	L.001	--	--	L.002	--	L.002	--
80-10-07	1620	417	--	L.001	--	--	L.002	--	003	--
80-11-12	1145	417	--	L.001	--	--	L.002	--	009	--
80-12-15	1145	417	--	L.001	--	--	L.002	--	L.002	--
81-01-14	1085	417	--	L.001	--	--	.008	--	.013	--
81-02-25	1030	417	--	L.001	--	--	L.002	--	003	--
81-03-25	0830	417	--	L.001	--	--	L.002	--	L.002	--
81-04-23	0820	417	--	L.001	--	--	L.002	--	--	--
81-05-13	0820	417	--	L.001	--	--	.004	--	--	--
81-06-17	1200	417	--	.001	--	--	1.002	--	--	--
81-07-08	0845	417	--	L.001	--	--	L.002	--	.004	--
81-08-12	0720	417	--	L.001	--	--	L.002	--	L.002	--
81-09-16	0835	417	--	L.001	--	--	L.002	--	L.002	--
81-10-06	1350	417	--	L.001	--	--	L.002	--	L.002	--
81-11-03	1415	417	--	L.001	--	--	L.002	--	L.002	--
81-12-09	0830	417	--	L.001	--	--	L.002	--	L.002	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05BE0013 LAT. 51D 7M 22S LONG 115D 23M 12S
BOW RIVER ABOUT 4.5 KM ABOVE CANMORE BELOW SE BOUNDARY OF BANFF NAT'L PARK ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE. CU MG/L	29020P COPPER TOTAL RECOVERABLE CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	30020P ZINC TOTAL RECOVERABLE ZN MG/L	38301P STRONTIUM EXTRBLE. SR MG/L	42301P MOLYBDENUM EXTRBLE. MO MG/L	48302P CADMIUM EXTRBLE CD MG/L	48020P CADMIUM TOTAL RECOVERABLE CD MG/L
80-01-08	1525	417	.001	--	.001	--	--	--	L.001	--
80-02-05	1535	417	L.001	--	.001	--	--	--	L.001	--
80-03-05	1300	417	.001	--	L.001	--	--	--	L.001	--
80-04-23	1030	417	--	.003	--	003	--	--	--	L.001
80-05-14	0900	417	--	.001	--	002	--	--	--	001
80-06-18	0810	417	--	.002	--	.008	--	--	--	L.001
80-07-29	1150	417	--	.001	--	001	--	--	--	L.001
80-08-20	0845	417	--	L.001	--	L.001	--	--	--	L.001
80-09-17	1010	417	--	L.001	--	008	--	--	--	L.001
80-10-07	1820	417	--	.006	--	005	--	--	--	L.001
80-11-12	1145	417	--	.003	--	009	--	--	--	L.001
80-12-15	1145	417	--	.001	--	002	--	--	--	L.001
81-01-14	1085	417	--	.003	--	002	--	--	--	001
81-02-25	1030	417	--	L.001	--	L.001	--	--	--	L.001
81-03-25	0830	417	--	.001	--	003	--	--	--	L.001
81-04-23	0820	417	--	.004	--	--	--	--	--	L.001
81-05-13	0820	417	--	.004	--	--	--	--	--	001
81-06-17	1200	417	--	L.001	--	002	--	--	--	L.001
81-07-08	0845	417	--	.001	--	011	--	--	--	L.001
81-08-12	0720	417	--	L.001	--	L.001	--	--	--	L.001
81-08-16	0835	417	--	L.001	--	003	--	--	--	L.001
81-10-06	1350	417	--	.004	--	002	--	--	--	L.001
81-11-03	1415	417	--	002	--	002	--	--	--	L.001
81-12-09	0830	417	--	L.001	--	.002	--	--	--	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	56301P BARIUM EXTRBLE. BA MG/L	56020P BARIUM TOTAL RECOVERABLE BA MG/L	82302P LEAD EXTRBLE. PB MG/L	82020P LEAD TOTAL RECOVERABLE PB MG/L	06804P CYANIDE DISSOLVED CN MG/L	06535P PHENOLIC MATERIAL PHENOL MG/L	08500P N-ALKANES C10 - C26 UG/L	08510P AROMATIC HYDROC. UG/L
80-01-08	1525	417	L.05	--	L.004	--	L.001	L.001	--	--
80-02-05	1535	417	L.05	--	L.004	--	001	L.001	--	--
80-03-05	1300	417	L.05	--	L.004	--	001	L.001	--	--
80-04-23	1030	417	--	L.05	--	L.004	002	L.001	--	--
80-05-14	0900	417	--	L.05	--	004	L.001	L.001	--	--
80-06-18	0810	417	--	07	--	L.004	L.001	002	--	--
80-07-29	1150	417	--	L.05	--	L.004	001	L.001	--	--
80-08-20	0845	417	--	L.05	--	L.004	L.001	L.001	--	--
80-09-17	1010	417	--	L.05	--	L.004	L.001	001	--	--
80-10-07	1820	417	--	L.05	--	L.004	L.001	L.001	--	--
80-11-12	1145	417	--	14	--	L.004	002	L.001	--	--
80-12-15	1145	417	--	L.05	--	L.004	003	002	--	--
81-01-14	1085	417	--	L.05	--	L.004	005	L.001	--	--
81-02-25	1030	417	--	L.05	--	L.004	001	L.001	--	--
81-03-25	0830	417	--	L.05	--	L.004	003	L.001	--	--
81-04-23	0820	417	--	07	--	L.004	002	L.001	--	--
81-05-13	0820	417	--	L.05	--	006	002	L.001	--	--
81-06-17	1200	417	--	L.05	--	004	L.001	L.001	--	--
81-07-08	0845	417	--	L.05	--	L.004	001	L.001	--	--
81-08-12	0720	417	--	L.05	--	L.004	003	L.001	--	--
81-08-16	0835	417	--	L.05	--	L.004	L.001	L.001	--	--
81-10-06	1350	417	--	L.05	--	L.004	L.001	L.001	--	--
81-11-03	1415	417	--	L.05	--	L.004	002	001	--	--
81-12-09	0830	417	--	L.05	--	L.004	L.001	L.001	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05BE0013
BOW RIVER ABOUT 4.5 KM ABOVE CANMORE BELOW SE BOUNDARY OF BANFF NAT'L PARK ALBERTA LAT. 51D 7M 22S LONG. 115D 23M 12S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	05521P OIL AND GREASE MG/L	10701P SURFACT. R-ALKYL SULPHNTS LAS MG/L	18130L ALDRIN UG/L	17811L HEXACHLORO-BENZENE UG/L	18075L ALPHA-BHC UG/L	18070L GAMMA-BHC (LINDANE) UG/L	18010L P,P-TDE UG/L	18020L P,P-DDE UG/L
80-01-08	1525	417	--	--	L.001	L.001	.007	L.001	L.002	L.001
80-02-06	1535	417	--	--	L.001	L.001	.005	L.001	L.002	L.001
80-03-05	1300	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
80-04-23	1030	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
80-05-14	0900	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
80-06-18	0910	417	--	--	L.001	L.001	.003	L.001	L.002	L.001
80-07-29	1150	417	--	--	L.001	L.001	.004	L.001	L.002	L.001
80-08-20	0845	417	--	--	L.001	L.001	.002	L.001	L.002	L.001
80-09-17	1010	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
80-10-07	1820	417	--	--	L.001	L.001	.002	L.001	L.002	L.001
80-11-12	1145	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
80-12-15	1145	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-01-14	1055	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-02-25	1030	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-03-25	0830	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-04-23	0820	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-05-13	0820	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-06-17	1200	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-07-06	0845	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-08-12	0720	417	--	--	L.001	L.001	.003	L.001	L.002	L.001
81-09-16	0835	417	--	--	L.001	L.001	.002	L.001	L.002	L.001
81-10-06	1350	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-11-03	1415	417	--	--	L.001	L.001	.003	L.001	L.002	L.001
81-12-08	0830	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18005L O,P-DDT UG/L	18000L P,P-DDT UG/L	18030L P,P-METHOXY-CHLOR UG/L	18140L ENDRIN UG/L	18050L ALPHA-ENDOSULFAN UG/L	18055L BETA-ENDOSULFAN UG/L	18040L HEPTACHLOR UG/L	18045L HEPTACHLOR EPOXIDE UG/L
80-01-08	1525	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-02-06	1535	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-03-05	1300	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-04-23	1030	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-05-14	0900	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-06-18	0910	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-07-29	1150	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-08-20	0845	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-09-17	1010	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-10-07	1820	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-11-12	1145	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-12-15	1145	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-01-14	1055	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-02-25	1030	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-03-25	0830	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-04-23	0820	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-05-13	0820	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-06-17	1200	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-07-06	0845	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-08-12	0720	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-09-16	0835	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-10-06	1350	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-11-03	1415	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-12-08	0830	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL08BE0013
BOW RIVER ABOUT 4.5 KM ABOVE CANMORE BELOW SE BOUNDARY OF BANFF NAT'L PARK ALBERTA
LAT. 51D 7M 22S LONG. 115D 23M 12S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18150L HEOB (DIELDRIN) UG/L	18125L MIREX UG/L	18050L ALPHA-(CIS) CHLORDANE UG/L	18085L GAMMA-(TRANS) CHLORDANE UG/L	18520P MCPA UG/L	18500P 2,4-D UG/L	18550P 2,4-DB UG/L	18555P DICHLORPROP UG/L
80-01-08	1525	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-02-06	1535	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-03-06	1300	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-04-23	1030	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-06-14	0900	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-08-18	0810	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-07-29	1150	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-08-20	0845	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-09-17	1010	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-10-07	1620	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-11-12	1145	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
80-12-15	1145	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-01-14	1085	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-02-25	1030	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-03-25	0830	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-04-23	0820	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-05-13	0820	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-06-17	1200	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-07-08	0845	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-08-12	0720	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-08-18	0835	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-10-06	1350	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-11-03	1415	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004
81-12-08	0830	417	L. 002	L. 001	L. 003	L. 002	L. 2	L. 004	L. 009	L. 004

DATE YMD/AMJ	TIME/ HEURE	SUB-IC/ SOUS-ID	18510P 2,4,5-T UG/L	18540P FENOPROP (SILVEX) UG/L	18601P PICLORAM UG/L	18159L AROCLOR 1242 (PCB'S) UG/L	18160L AROCLOR 1254 (PCB'S) UG/L	18161L AROCLOR 1248 (PCB'S) UG/L	18162L AROCLOR 1260 (PCB'S) UG/L	18164L AROCHLOR TOTAL (PCB'S) UG/L
80-01-08	1525	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-02-06	1535	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-03-06	1300	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-04-23	1030	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-06-14	0900	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-08-18	0810	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-07-29	1150	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-08-20	0845	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-09-17	1010	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 020
80-10-07	1620	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	--
80-11-12	1145	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	--
80-12-15	1145	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	--
81-01-14	1085	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	--
81-02-25	1030	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	L. 002
81-03-25	0830	417	L. 002	L. 004	L. 2	--	L. 002	L. 002	L. 005	--
81-04-23	0820	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002
81-05-13	0820	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002
81-06-17	1200	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002
81-07-08	0845	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002
81-08-12	0720	417	L. 002	L. 004	--	L. 002	L. 002	--	L. 005	L. 002
81-08-18	0835	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002
81-10-06	1350	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002
81-11-03	1415	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002
81-12-08	0830	417	L. 002	L. 004	L. 2	L. 002	L. 002	--	L. 005	L. 002

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALOBBA0011
BOW RIVER AT HIGHWAY 1 ABOVE LAKE LOUISE, ALBERTA LAT. 51D 26M 38S LONG. 116D 12M 42S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02061F TEMP. WATER DEG. C.	02061L TEMP. WATER DEG. C.	02041F SPECIFIC CONDUCT. USIE/CM	02041L SPECIFIC CONDUCT. USIE/CM	10301F PH PH UNITS	10301L PH PH UNITS	02073F TURBIDITY JTU	02073L TURBIDITY JTU
80-01-08	1345	417	1.0	17.8	--	196.	8.3	8.0	.5	1.5
80-02-06	1345	417	1.0	18.1	--	184.	7.9	7.8	.5	--
80-03-04	1700	417	.5	22.2	185.	201.	8.3	8.0	.4	1.4
80-04-22	1130	417	1.0	20.1	180.	188.	8.3	8.0	--	.2
80-06-13	1215	417	4.0	17.8	149.	180.	8.3	8.4	1.2	.9
80-06-18	1220	417	10.0	19.7	145.	181.	8.2	8.1	3.6	5.4
80-07-28	1045	417	12.0	21.7	--	155.	8.4	8.1	4.0	4.3
80-08-19	1215	417	8.0	16.9	135.	152.	8.1	8.0	.2	2.3
80-08-18	1240	417	8.0	17.7	143.	153.	--	8.1	1.2	1.8
80-10-07	1240	417	6.5	19.4	149.	167.	7.6	8.1	.9	1.0
80-11-11	1445	417	1.0	19.1	151.	180.	8.0	8.0	.2	.7
80-12-02	1505	417	0.0	18.5	167.	209.	7.6	8.1	.4	1.8
81-01-13	1515	417	0.0	20.2	172.	203.	7.5	8.0	.2	.5
81-02-24	1545	417	0.0	22.5	169.	200.	8.3	8.1	.1	.6
81-03-24	1245	417	0.0	18.4	190.	195.	8.1	8.0	.3	.5
81-04-22	1210	417	1.5	20.7	205.	215.	8.2	8.1	.2	1.2
81-06-12	1205	417	3.0	17.8	172.	191.	7.9	8.0	.3	1.2
81-06-18	1100	417	5.0	17.2	162.	186.	8.0	8.0	1.4	1.3
81-07-07	1120	417	8.0	14.9	154.	159.	8.1	8.1	2.5	2.7
81-08-11	1215	417	14.0	24.0	--	184.	8.0	8.3	6.8	3.2
81-08-15	1040	417	7.5	23.1	150.	156.	8.0	8.2	.2	2.8
81-10-06	1140	417	4.5	23.5	156.	166.	8.0	8.1	1.5	2.0
81-11-03	1130	417	2.0	17.4	161.	175.	8.1	8.0	.5	.9
81-12-08	1230	417	0.0	22.0	173.	178.	8.0	8.0	.4	.6

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02021L COLOUR TRUE REL. UNITS	10401L RESIDUE NONFILTR. MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	08717G CHLORO-PHYLL A MG/L	36002F COLIFORMS TOTAL MF NO/DL	36012F COLIFORMS FECAL MF NO/DL	36103F FECAL STREP. MF NO/DL
80-01-08	1345	417	5.	--	L1.	--	--	L2.	L2.	L2.
80-02-06	1345	417	5.	--	L1.	--	--	L2.	L2.	L2.
80-03-04	1700	417	10.	--	L1.	--	--	L2.	L2.	L2.
80-04-22	1130	417	5.	--	2. 01R	--	L.001 17T	L2. 02U	L2. 12U	2. 03U
80-06-13	1215	417	5	--	L1.	--	L.001	2.	L2.	L2.
80-06-18	1220	417	10.	--	9.	--	L.001	--	--	--
80-07-28	1045	417	10.	--	2.	--	--	--	--	--
80-08-19	1215	417	10.	--	3.	--	.002	3.	2.	L2.
80-08-18	1240	417	10.	--	2.	--	L.001	2.	L2.	2.
80-10-07	1240	417	10.	--	L1.	--	L.001	L2.	L2.	L2.
80-11-11	1445	417	10.	--	L1.	--	.001	12.	9.	L2.
80-12-02	1505	417	5.	--	L1.	--	L.001	3.	L2.	--
81-01-13	1515	417	10.	--	1.	--	L.001	L2.	L2.	L2.
81-02-24	1545	417	L5.	--	L1.	--	L.001	L2.	L2.	L2.
81-03-24	1245	417	--	5.	4.	--	L.001	L1.	L1.	L1.
81-04-22	1210	417	--	5.	L1.	--	L.001	L1.	L1.	L1.
81-06-12	1205	417	--	10.	L1.	--	L.001	L1.	L1.	1.
81-06-18	1100	417	--	5.	L1. 01R	--	L.001 17T	5. 02U	L2. 12U	2. 03U
81-07-07	1120	417	--	5.	5.	--	L.001	10.	4.	3.
81-08-11	1215	417	--	5.	2.	--	L.001	L2.	L2.	L2.
81-08-15	1040	417	--	10.	2.	--	L.001	1.	L1.	1.
81-10-06	1140	417	--	5.	L1.	--	L.001	1.	L1.	L1.
81-11-03	1130	417	--	10.	L1.	--	L.001	L1.	L1.	1.
81-12-08	1230	417	--	5.	L1.	--	L.001	2.	L1.	L1.

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALOSBA0011
BOW RIVER AT HIGHWAY 1 ABOVE LAKE LOUISE, ALBERTA LAT. 51D 26M 35S LONG. 116D 12M 42S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08101W OXYGEN DISSOLVED DO O2 MG/L	08301L CARBONATE (CALCD.) CO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	08201L BICARBONT. (CALCD.) HCO3 MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	20103L CALCIUM DISSOLVED CA MG/L	12102L MAGNESIUM DISSOLVED MG MG/L	10602L HARDNESS TOTAL (CALCD.) CACO3 MG/L
80-01-08	1345	417	12.3	0.	0.0	96.	79.0 06L	23.40	8.9	95.1
80-02-05	1345	417	12.6	0.	0.0	91.	75.0 06L	20.50	9.0	88.2
80-03-04	1700	417	11.9	0.	0.0	93.	76.0 06L	21.00	9.0	89.5
80-04-22	1130	417	12.5	0.	0.0	100.	82.0	22.50	9.0	93.2
80-05-13	1215	417	11.2	0.	0.0	85.	70.0	19.90	8.3	83.9
80-06-18	1220	417	9.8	0.	0.0	81.	66.0	18.40	7.4	76.4
80-07-28	1045	417	9.7	0.	0.0	82.	67.0	19.40	7.3	78.5
80-08-19	1215	417	10.0	0.	0.0	81.	66.0	20.20	7.6	81.7
80-09-16	1240	417	10.6	0.	0.0	83.	68.0	19.50	7.7	80.4
80-10-07	1240	417	12.0	0.	0.0	84.	69.0	20.00	7.1	79.2
80-11-11	1445	417	13.6	0.	0.0	91.	75.0	21.30	8.3	87.4
80-12-02	1505	417	12.2	0.	0.0	105.	86.0	25.10	9.7	102.6
81-01-13	1515	417	11.4	0.	0.0	102.	84.0	24.40	9.5	100.0
81-02-24	1545	417	11.8	0.	0.0	100.	82.0	23.40	9.1	95.9
81-03-24	1245	417	12.7	0.	0.0	100.	82.0	23.80	9.5	98.5
81-04-22	1210	417	11.5	0.	0.0	107.	88.0	25.00	11.0	107.7
81-05-12	1205	417	11.1	0.	0.0	102.	84.0	24.30	8.8	96.9
81-06-16	1100	417	10.2	0.	0.0	87.	71.0	20.80	8.2	85.7
81-07-07	1120	417	9.7	0.	0.0	83.	68.0	19.30	7.9	80.7
81-08-11	1215	417	9.0	0.	0.0	84.	69.0	20.10	7.8	82.3
81-09-15	1040	417	9.8	0.	0.0	81.	66.0	19.20	7.0	77.0
81-10-06	1140	417	11.5	0.	0.0	88.	72.0	21.10	7.6	84.0
81-11-03	1130	417	11.5	0.	0.0	91.	75.0	22.40	8.9	92.6
81-12-08	1230	417	11.8	0.	0.0	96.	79.0	23.40	8.2	92.2

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	00201L TOTAL DISSOLVED SOLIDS (CALCD.) MG/L	11103L SODIUM DISSOLVED NA MG/L	19103L POTASSIUM DISSOLVED K MG/L	17206L CHLORIDE DISSOLVED CL MG/L	09105L FLUORIDE DISSOLVED F MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	14105L SILICA REACTIVE SIO2 MG/L	16104P SULFIDE DISSOLVED S MG/L
80-01-08	1345	417	93.	.6	.2	.4	L.05	9.	2.8	--
80-02-05	1345	417	88.	.6	.1	.4	L.05	10.	2.5	--
80-03-04	1700	417	90.	.6	.2	.4	.05	10.	2.8	--
80-04-22	1130	417	93.	.6	.4	.5	.03	8.	3.2	--
80-05-13	1215	417	82.	.5	.3	.4	L.05	9.	1.4	--
80-06-18	1220	417	75.	.4	.2	.4	L.05	8.	.4	--
80-07-28	1045	417	78.	.3	.2	.2	L.05	9.	1.8	--
80-08-19	1215	417	79.	.4	.2	.3	L.05	8.	2.2	--
80-09-16	1240	417	79.	.5	.1	.2	L.05	8.	2.2	--
80-10-07	1240	417	78.	.5	.2	.2	L.05	8.	.2	--
80-11-11	1445	417	86.	.6	.1	.3	.06	8	2.5	--
80-12-02	1505	417	100.	.9	.2	.7	L.05	9.	3.1	--
81-01-13	1515	417	98.	.2	.2	.3	.06	10.	3.2	--
81-02-24	1545	417	96.	.6	.2	.3	.06	10.	2.9	--
81-03-24	1245	417	97.	.7	.2	.3	.06	10.	2.8	--
81-04-22	1210	417	104.	.9	.2	.6	.07	10.	3.8	--
81-05-12	1205	417	98	.9	.2	.6	.06	8.	4.3	--
81-06-16	1100	417	84.	.8	.1	.2	L.05	8.	2.8	--
81-07-07	1120	417	79.	.4	.2	.2	L.05	8.	2.2	--
81-08-11	1215	417	80.	.3	.1	.2	L.05	8.	2.1	--
81-09-15	1040	417	77.	.4	.2	.2	L.05	8.	1.8	--
81-10-06	1140	417	83.	.5	.3	.3	L.05	8.	2.2	--
81-11-03	1130	417	89.	1.9	.2	.5	L.05	8.	2.4	--
81-12-08	1230	417	92.	4	3	.4	L.05	9.	2.7	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL08BA0011
BOW RIVER AT HIGHWAY 1 ABOVE LAKE LOUISE, ALBERTA LAT. 510 28M 36S LONG. 116D 12M 42S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15406L PHOSPHORUS TOTAL P MG/L	15103D PHOSPHORUS TOTAL DISSOLVED P MG/L	15801L PHOSPHORUS PARTICULATE (CALCD.) P MG/L	07110D NITROGEN DISSOLVED NO3 & NO2 N MG/L	07851D NITROGEN DISSOLVED N MG/L	07851L NITROGEN DISSOLVED N MG/L	07902L NITROGEN PARTICUL. N MG/L	07803L NITROGEN TOTAL (CALCD.) N MG/L
80-01-08	1345	417	.016	L.003 03L	0.013	.12 10L	--	.15	L.01	0.16
80-02-05	1345	417	L.003	L.003 03L	00.000	.08 10L	--	.08	.03	.11
80-03-04	1700	417	L.003	L.003 03L	00.000	.09 10L	--	.12	L.01	0.13
80-04-22	1130	417	L.003 06R	L.003 03V	00.000	.07 10V	.12 51V	.16 51R	.11 02R	.27
80-05-13	1215	417	.007	L.003	0.004	.06	.08	.12	L.01	0.13
80-06-18	1220	417	.008	L.003	0.005	.04	.07	.07	L.01	0.08
80-07-28	1045	417	--	L.003 03L	--	.04 10L	--	.04	.04	.08
80-08-19	1215	417	L.003	L.003	00.000	.03	.05	.10	.05	.15
80-08-18	1240	417	L.003	L.003	00.000	.03	.05	.06	L.01	0.07
80-10-07	1240	417	L.003	L.003	00.000	.05	.06	.07	.09	.16
80-11-11	1445	417	L.003	L.003	00.000	.07	.07	.13	.03	.16
80-12-02	1505	417	L.003	L.003	00.000	.06	.09	.09	L.01	0.10
81-01-13	1515	417	L.003	L.003	00.000	.07	.10	.10	L.01	0.11
81-02-24	1545	417	L.003	L.003	00.000	.07	.10	.10	L.01	0.11
81-03-24	1245	417	L.003	L.003	00.000	.07	.08	.10	L.01	0.11
81-04-22	1210	417	L.003	L.003	00.000	.08	.10	.14	L.01	0.15
81-05-12	1205	417	.008	L.003	0.005	.05	.10	.10	L.01	0.11
81-06-16	1100	417	L.003 06R	L.003 03V	00.000	.05 10V	.07 51V	.07 51R	L.01 02R	0.08
81-07-07	1120	417	.007	.003	.004	.05	.07	.06	L.01	0.07
81-08-11	1215	417	.006	L.003	0.003	.05	.05	.07	.02	.09
81-09-15	1040	417	L.003	L.003	00.000	.04	.06	.08	L.01	0.07
81-10-06	1140	417	L.003	L.003	00.000	.04	.06	.07	L.01	0.08
81-11-03	1130	417	L.003	L.003	00.000	.07	.08	--	L.01	--
81-12-08	1230	417	L.003	L.003	00.000	.06	.09	.08	L.01	0.10

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07506P NITROGEN TOTAL AMMONIA N MG/L	15258D PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L	06152L CARBON DISSOLVED INORGANIC C MG/L	06104L CARBON DISSOLVED ORGANIC C MG/L	06902L CARBON ORGANIC PARTICUL. C MG/L	06002L CARBON TOTAL ORGANIC (CALCD.) MG/L	03301P LITHIUM EXTRBLE. LI MG/L	13302P ALUMINUM EXTRBLE. AL MG/L
80-01-08	1345	417	--	--	18.0	L1.0	.06	01.1	--	--
80-02-05	1345	417	--	--	15.0	1.0	.04	1.0	--	--
80-03-04	1700	417	--	--	14.0	L1.0	L.01	01.0	--	--
80-04-22	1130	417	--	--	--	3.0 04V	--	--	--	--
80-05-13	1215	417	--	--	--	2.0 04D	--	--	--	--
80-06-18	1220	417	--	--	--	1.0 04D	.57	1.6	--	--
80-07-28	1045	417	--	--	--	L1.0	.17	01.2	--	--
80-08-19	1215	417	--	--	--	L1.0 04D	.14	01.1	--	--
80-08-18	1240	417	--	--	--	L1.0 04D	.05	01.1	--	--
80-10-07	1240	417	--	--	15.0 52D	L1.0 04D	.14	01.1	--	--
80-11-11	1445	417	--	--	--	L1.0 04D	.08	01.1	--	--
80-12-02	1505	417	--	--	--	L1.0 04D	.06	01.1	--	--
81-01-13	1515	417	--	--	--	L1.0 04D	.03	01.0	--	--
81-02-24	1545	417	--	--	--	L1.0 04D	.04	01.0	--	--
81-03-24	1245	417	--	--	--	.5	.07	.6	--	--
81-04-22	1210	417	--	--	--	--	.06	--	--	--
81-05-12	1205	417	L.1	--	--	2.4	.06	2.5	--	--
81-06-16	1100	417	L.1 06H	--	--	1.2 04R	.11 02R	1.3	--	--
81-07-07	1120	417	L.1	--	--	.5	.32	.9	--	--
81-08-11	1215	417	L.1	--	--	.4	.13	.5	--	--
81-09-15	1040	417	L.1	--	--	.5	.14	.6	--	--
81-10-06	1140	417	L.1	--	--	.6	.13	.7	--	--
81-11-03	1130	417	L.1	--	--	1.8	.05	1.9	--	--
81-12-08	1230	417	L.1	--	--	.6	.05	.7	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALOSBAC011 LAT. 51D 28M 36S LONG. 116D 12M 42S
BOW RIVER AT HIGHWAY 1 ABOVE LAKE LOUISE, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	05105L BORON DISSOLVED B MG/L	33104D ARSENIC DISSOLVED AS MG/L	34102D SELENIUM DISSOLVED SE MG/L	25304P MANGANESE EXTRBLE. MN MG/L	25104G MANGANESE DISSOLVED MN MG/L	26304P IRON EXTRBLE. FE MG/L	26104G IRON DISSOLVED FE MG/L	80011P MERCURY TOTAL HG UG/L
80-01-08	1345	417	--	--	--	--	--	--	--	L.02
80-02-06	1345	417	--	--	--	--	--	--	--	L.02
80-03-04	1700	417	--	--	--	--	--	--	--	L.02
80-04-22	1130	417	.03 05R	L.0005 04R	L.0005 02R	--	L.01 04T	--	L.04 04T	L.02 11W
80-05-13	1215	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-06-18	1220	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-07-28	1045	417	L.02	L.0005 04L	L.0005 02L	--	--	--	--	L.02
80-08-19	1215	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-08-18	1240	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-10-07	1240	417	L.02	L.0005	.0008	--	L.01	--	L.04	.02
80-11-11	1445	417	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
80-12-02	1505	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-01-13	1515	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-02-24	1545	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-03-24	1245	417	L.02	L.0005	.0006	--	L.01	--	L.04	L.02
81-04-22	1210	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-05-12	1208	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-06-16	1100	417	L.02 05R	L.0005 04V	L.0005 02V	--	L.01 04T	--	L.04 04T	L.02 11W
81-07-07	1120	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-08-11	1215	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-08-15	1040	417	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-10-06	1140	417	.02 05D	L.0005	.0006	--	L.01	--	L.04	L.02
81-11-03	1130	417	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-12-08	1230	417	.02 05D	L.0005	L.0005	--	L.01	--	L.04	L.02

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL08BA0001
NORTH SASKATCHEWAN RIVER AT WHIRLPOOL POINT, ALBERTA LAT. 52D 0M 10S LONG. 118D 28M 18S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02061F TEMP. WATER DEG. C.	02061L TEMP. WATER DEG. C.	02041F SPECIFIC CONDUCT. USIE/CM	02041L SPECIFIC CONDUCT. USIE/CM	10301F PH PH UNITS	10301L PH PH UNITS	02073F TURBIDITY JTU	02073L TURBIDITY JTU
80-01-07	1400	417	1.0	18.6	--	330.	--	8.0	.8	.5
80-02-04	1420	417	2.0	17.6	--	314.	8.1	7.9	2.5	8.0
80-03-03	1425	417	.5	22.0	280.	339.	8.6	8.1	1.2	1.4
80-04-22	1130	417	1.5	20.1	244.	275.	8.4	8.1	--	1.8
80-06-13	1020	417	4.5	17.7	204.	230.	8.4	8.4	10.0	8.5
80-06-17	1015	417	8.0	19.9	182.	176.	8.0	8.2	280.0	315.0
80-07-28	1215	417	9.0	21.6	--	145.	8.3	8.2	120.0	125.0
80-08-18	1010	417	7.0	16.9	142.	149.	8.1	8.1	12.0	58.0
80-08-18	1030	417	6.0	17.7	189.	209.	8.0	8.1	5.4	7.5
80-10-07	1040	417	7.0	19.2	178.	200.	8.2	8.1	40.0	51.0
80-11-11	1245	417	0.0	19.0	245.	284.	8.2	8.0	.5	.8
80-12-02	1315	417	0.0	19.6	264.	309.	7.7	8.2	.6	2.3
81-01-13	1250	417	0.0	20.1	274.	317.	8.0	8.1	.2	1.4
81-02-24	1350	417	0.0	22.4	279.	326.	8.4	8.1	.6	.8
81-03-24	1035	417	1.5	18.4	310.	322.	8.3	8.1	1.4	3.0
81-04-22	1020	417	4.0	20.5	302.	318.	8.2	8.2	2.8	9.8
81-06-12	1020	417	5.0	16.9	271.	294.	8.2	8.1	3.0	3.2
81-06-16	0850	417	7.0	18.3	210.	217.	8.3	8.1	25.0	24.0
81-07-07	0820	417	6.5	16.1	175.	178.	8.2	8.2	95.0	84.0
81-08-10	1145	417	10.0	23.9	142.	162.	7.8	8.3	G200.0	130.0
81-09-15	0840	417	5.5	23.1	167.	176.	8.0	8.2	7.0	18.0
81-10-06	0830	417	3.0	23.5	221.	235.	8.1	8.1	3.6	4.2
81-11-03	0850	417	2.8	15.9	246.	264.	8.1	8.1	1.6	1.7
81-12-08	1015	417	0.0	22.0	279.	286.	8.1	8.1	1.4	.8

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02021L COLOUR TRUE REL. UNITS	10401L RESIDUE NONFILTR. MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	06717G CHLORO-PHYLL A MG/L	36002F COLIFORMS TOTAL MF NO/DL	36012F COLIFORMS FECAL MF NO/DL	36103F FECAL STREP. MF NO/DL
80-01-07	1400	417	5.	--	L1.	--	--	L2.	L2.	L2.
80-02-04	1420	417	5.	--	L1.	--	--	L2.	L2.	L2.
80-03-03	1425	417	10.	--	1.	--	--	L2.	L2.	L2.
80-04-22	1130	417	10.	--	6.	--	L.001	2.	L2.	L2.
80-06-13	1020	417	5.	--	10.	--	L.001	L2.	L2.	L2.
80-06-17	1015	417	100.	--	513.	--	.004	--	--	--
80-07-28	1215	417	60.	--	102.	--	--	--	--	--
80-08-18	1010	417	40.	--	84.	--	L.001	4.	L2.	8.
80-08-18	1030	417	10.	--	12.	--	L.001	L2.	L2.	L2.
80-10-07	1040	417	40.	--	63.	--	L.001	4.	L2.	L2.
80-11-11	1245	417	10.	--	2.	--	L.001	L2.	L2.	L2.
80-12-02	1315	417	20.	--	2.	--	L.001	5.	L2.	--
81-01-13	1250	417	10.	--	L1.	--	L.001	2.	L2.	L2.
81-02-24	1350	417	5.	--	1.	--	.001	L2.	L2.	L2.
81-03-24	1035	417	--	5.	3.	--	L.001	L1.	L1.	L1.
81-04-22	1020	417	--	10.	11.	--	L.001	L1.	L1.	L1.
81-06-12	1020	417	--	5.	5.	--	L.001	L1.	L1.	L1.
81-06-16	0850	417	--	20.	32.	--	L.001	L2.	L2.	2.
81-07-07	0820	417	--	5.	100.	--	L.001	20.	2.	80.
81-08-10	1145	417	--	5.	150.	--	L.001	--	--	--
81-09-15	0840	417	--	20.	33.	--	L.001	1.	1.	1.
81-10-06	0830	417	--	10.	5.	--	L.001	L1.	L1.	2.
81-11-03	0850	417	--	10.	1.	--	L.001	3.	3.	L1.
81-12-08	1015	417	--	5.	2.	--	L.001	L1.	L1.	L1.

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - GOALOSBA0001
NORTH SASKATCHEWAN RIVER AT WHIRLPOOL POINT, ALBERTA LAT. 520 0M 10S LONG. 1180 28M 18S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08101N OXYGEN DISSOLVED DO O2 MG/L	08301L CARBONATE (CALCD.) CO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	08201L BICARBONT. (CALCD.) HCO3 MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	20103L CALCIUM DISSOLVED CA MG/L	12102L MAGNESIUM DISSOLVED MG MG/L	10602L HARDNESS TOTAL (CALCD.) CACO3 MG/L
80-01-07	1400	417	12.2	0.	0.0	138.	113.0 08L	40.00	15.8	164.9
80-02-04	1420	417	11.9	0.	0.0	129.	106.0 08L	35.50	15.4	152.1
80-03-03	1425	417	12.2	0.	0.0	126.	103.0 08L	38.50	16.3	158.3
80-04-22	1130	417	13.1	0.	0.0	117.	96.0	34.00	12.1	134.7
80-05-13	1020	417	9.8	--	--	--	91.0	28.80	9.7	111.9
80-06-17	1015	417	11.2	0.	0.0	94.	77.0	23.80	8.7	87.0
80-07-28	1215	417	10.7	0.	0.0	85.	70.0	21.80	5.5	77.1
80-08-19	1010	417	10.9	0.	0.0	76.	62.0	22.80	5.8	80.8
80-09-16	1030	417	10.9	0.	0.0	95.	78.0	25.00	8.7	98.2
80-10-07	1040	417	10.8	0.	0.0	94.	77.0	25.00	7.5	93.3
80-11-11	1245	417	13.9	0.	0.0	121.	99.0	34.20	12.8	138.1
80-12-02	1315	417	12.5	0.	0.0	134.	110.0	35.70	14.2	147.6
81-01-13	1250	417	11.5	0.	0.0	130.	107.0	37.00	14.3	151.3
81-02-24	1350	417	11.6	0.	0.0	133.	109.0	38.70	15.8	161.7
81-03-24	1035	417	12.3	0.	0.0	132.	108.0	37.90	14.9	156.0
81-04-22	1020	417	10.9	0.	0.0	124.	102.0	38.00	15.5	158.7
81-05-12	1020	417	10.9	0.	0.0	133.	109.0	38.90	13.1	151.1
81-06-16	0850	417	10.1	0.	0.0	109.	89.0	28.30	9.4	109.4
81-07-07	0820	417	10.1	0.	0.0	93.	76.0	23.20	7.2	87.5
81-08-10	1145	417	10.2	0.	0.0	79.	65.0	22.00	6.3	80.9
81-09-15	0840	417	10.4	0.	0.0	82.	67.0	23.50	6.7	86.3
81-10-06	0830	417	11.2	0.	0.0	104.	85.0	29.50	10.1	115.2
81-11-03	0850	417	11.2	0.	0.0	112.	92.0	32.80	12.4	133.0
81-12-08	1015	417	11.7	0.	0.0	132.	108.0	37.20	13.9	150.1

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	00201L TOTAL DISSOLVED SOLIDS (CALCD.) MG/L	11103L SODIUM DISSOLVED NA MG/L	19103L POTASSIUM DISSOLVED K MG/L	17206L CHLORIDE DISSOLVED CL MG/L	09105L FLUORIDE DISSOLVED F MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	14105L SILICA REACTIVE SIO2 MG/L	16104P SULFIDE DISSOLVED S MG/L
80-01-07	1400	417	173.	1.3	.3	.6	.07	43.	4.0	--
80-02-04	1420	417	163.	1.2	.4	.6	.08	42.	3.9	--
80-03-03	1425	417	163.	1.3	.4	.6	.09	42.	4.2	--
80-04-22	1130	417	143.	.9	.4	.5	.06	34.	3.3	--
80-05-13	1020	417	118.	.5	.3	.4	L.05	21.	2.4	--
80-06-17	1015	417	90.	.4	1.0	.2	.05	10.	2.1	--
80-07-28	1215	417	82.	.4	.2	.2	.06	10.	1.5	--
80-08-19	1010	417	79.	.3	.2	.2	L.05	11.	1.6	--
80-09-16	1030	417	106.	.6	.2	.3	.06	22.	2.6	--
80-10-07	1040	417	100.	.6	.3	.3	.07	18.	2.1	--
80-11-11	1245	417	147.	1.0	.3	.5	.10	35.	3.3	--
80-12-02	1315	417	157.	1.0	.3	.5	.08	35.	3.8	--
81-01-13	1250	417	157.	.5	.3	.5	.09	36.	3.8	--
81-02-24	1350	417	168.	1.0	.3	.6	.10	42.	3.9	--
81-03-24	1035	417	165.	1.0	.3	.5	.09	42.	3.8	--
81-04-22	1020	417	161.	.9	.4	.5	.10	41.	3.6	--
81-05-12	1020	417	156.	1.0	.3	.4	L.05	33.	3.9	--
81-06-16	0850	417	112.	.6	.2	.3	L.05	17.	2.9	--
81-07-07	0820	417	90.	.4	.2	.2	L.05	11.	2.2	--
81-08-10	1145	417	79.	.3	.2	.2	.05	9.	1.8	--
81-09-15	0840	417	88.	.4	.2	.2	.05	15.	1.8	--
81-10-06	0830	417	118.	.6	.3	.3	.07	24.	2.6	--
81-11-03	0850	417	137.	1.1	.3	.5	.07	32.	2.8	--
81-12-08	1015	417	159.	1.0	.4	.4	.06	38.	3.6	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05BA0001
NORTH SASKATCHEWAN RIVER AT WHIRLPOOL POINT, ALBERTA LAT. 52D 0M 10S LONG. 118D 28M 18S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15406L PHOSPHORUS TOTAL P MG/L	15103D PHOSPHORUS TOTAL DISSOLVED P MG/L	15901L PHOSPHORUS PARTICULATE (CALCD.) P MG/L	07110D NITROGEN DISSOLVED NO3 & NO2 N MG/L	07851D NITROGEN DISSOLVED N MG/L	07851L NITROGEN DISSOLVED N MG/L	07902L NITROGEN PARTICUL. N MG/L	07603L NITROGEN TOTAL (CALCD.) N MG/L
80-01-07	1400	417	L.003	L.003 03L	00.000	.13 10L	--	.18	L.01	0.17
80-02-04	1420	417	L.003	L.003 03L	00.000	.19 10L	--	.19	.02	.21
80-03-03	1425	417	L.003	L.003 03L	00.000	.12 10L	--	.15	L.01	0.16
80-04-22	1130	417	.008	.005	.003	.09	.10	.11	L.01	0.12
80-05-13	1020	417	.007	.003	.004	.10	.10	.16	L.01	0.17
80-06-17	1015	417	.230	.008	.222	.07	.08	.07	.26	.33
80-07-28	1215	417	.280	L.003 03L	0.277	.07 10L	--	.12	.05	.17
80-08-19	1010	417	.027	L.003	0.024	.04	.05	.06	.04	.10
80-09-16	1030	417	L.003	L.003	00.000	.05	.06	.07	.02	.09
80-10-07	1040	417	.017	L.003	0.014	.07	.07	.09	.12	.21
80-11-11	1245	417	L.003	L.003	00.000	.10	.08	.11	.04	.15
80-12-02	1315	417	L.003	L.003	00.000	.11	.11	.12	L.01	0.13
81-01-13	1250	417	L.003	L.003	00.000	.10	.12	.11	L.01	0.12
81-02-24	1350	417	L.003	L.003	00.000	.09	.12	.13	L.01	0.14
81-03-24	1035	417	.003	L.003	00.000	.11	.11	.14	L.01	0.15
81-04-22	1020	417	--	L.003	--	.07	.11	.15	.08	.21
81-05-12	1020	417	.011	L.003	0.008	.08	.09	.10	L.01	0.11
81-06-16	0850	417	.012	L.003	0.009	.08	.08	.08	.02	.10
81-07-07	0920	417	.035	.003	.032	.07	.07	.07	.03	.10
81-08-10	1145	417	.085	L.003	0.082	.05	.06	.06	.05	.11
81-09-15	0840	417	.027	L.003	0.024	.06	.07	.07	L.01	0.08
81-10-06	0830	417	L.003	L.003	00.000	.06	.09	.08	L.01	0.09
81-11-03	0850	417	L.003	L.003	00.000	.09	.09	--	L.01	--
81-12-08	1015	417	L.003	L.003	00.000	.09	.10	.10	L.01	0.11

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07506P NITROGEN TOTAL AMMONIA N MG/L	15256D PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L	05152L CARBON DISSOLVED INORGANIC C MG/L	05104L CARBON DISSOLVED ORGANIC C MG/L	05902L CARBON ORGANIC PARTICUL. C MG/L	05002L CARBON TOTAL ORGANIC (CALCD.) MG/L	03301P LITHIUM EXTRBLE. LI MG/L	13302P ALUMINUM EXTRBLE. AL MG/L
80-01-07	1400	417	--	--	25.0	1.0	.10	1.1	--	--
80-02-04	1420	417	--	--	22.0	1.0	.11	1.1	--	--
80-03-03	1425	417	--	--	18.0	L1.0	L.01	01.0	--	--
80-04-22	1130	417	--	--	--	1.0 04D	--	--	--	--
80-05-13	1020	417	--	--	--	1.0 04D	--	--	--	--
80-06-17	1015	417	--	--	--	1.0 04D	--	--	--	--
80-07-28	1215	417	--	--	--	L1.0	5.50	06.5	--	--
80-08-19	1010	417	--	--	--	L1.0 04D	3.20	04.2	--	--
80-09-16	1030	417	--	--	--	L1.0 04D	.30	01.3	--	--
80-10-07	1040	417	--	--	18.0 52D	L1.0 04D	2.40	03.4	--	--
80-11-11	1245	417	--	--	--	L1.0 04D	.07	01.1	--	--
80-12-02	1315	417	--	--	--	L1.0 04D	L.01	01.0	--	--
81-01-13	1250	417	--	--	--	L1.0 04D	.04	01.0	--	--
81-02-24	1350	417	--	--	--	L1.0 04D	.04	01.0	--	--
81-03-24	1035	417	--	--	--	4	.27	.7	--	--
81-04-22	1020	417	--	--	--	--	2.00	--	--	--
81-05-12	1020	417	L.1	--	--	1.4	.16	1.6	--	--
81-06-16	0850	417	L.1	--	--	1.0	1.30	2.3	--	--
81-07-07	0920	417	L.1	--	--	.5	3.30	3.8	--	--
81-08-10	1145	417	L.1	--	--	.6	6.90	7.5	--	--
81-09-15	0840	417	L.1	--	--	.6	1.10	1.7	--	--
81-10-06	0830	417	L.1	--	--	.3	.20	.5	--	--
81-11-03	0850	417	L.1	--	--	1.0	.10	1.1	--	--
81-12-08	1015	417	L.1	--	--	.5	.07	.6	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05BA0001
NORTH SASKATCHEWAN RIVER AT WHIRLPOOL POINT, ALBERTA LAT. 52D 0M 10S LONG. 118D 28M 18S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	05105L BORON DISSOLVED B MG/L	33104D ARSENIC DISSOLVED AS MG/L	34102D SELENIUM DISSOLVED SE MG/L	25304P MANGANESE EXTRBLE. MN MG/L	25104G MANGANESE DISSOLVED MN MG/L	26304P IRON EXTRBLE. FE MG/L	26104G IRON DISSOLVED FE MG/L	80011P MERCURY TOTAL HG UG/L
80-01-07	1400	417	--	--	--	--	--	--	--	L.02
80-02-04	1420	417	--	--	--	--	--	--	--	L.02
80-03-03	1425	417	--	--	--	--	--	--	--	L.02
80-04-22	1130	417	.03	L.0005 04L	L.0005 02L	--	L.01	--	L.04	L.02
80-06-13	1020	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-08-17	1015	417	L.02	L.0005	L.0005	--	L.01	--	L.04	.02
80-07-28	1215	417	.03	L.0005 04L	L.0005 02L	--	--	--	--	.05
80-08-18	1010	417	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
80-08-16	1030	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-10-07	1040	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-11-11	1245	417	.06	L.0005	L.0005	--	L.01	--	L.04	L.02
80-12-02	1315	417	L.02	L.0005	L.0005	--	.01	--	L.04	.03
81-01-13	1250	417	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
81-02-24	1350	417	.04	L.0005	.0006	--	L.01	--	L.04	L.02
81-03-24	1035	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-04-22	1020	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-06-12	1020	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-08-16	0850	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-07-07	0920	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-08-10	1145	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-09-15	0840	417	.04 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-10-06	0930	417	.02 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-11-03	0950	417	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-12-08	1015	417	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

III

RESULTS FROM

JASPER NATIONAL PARK

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0015
ATHABASCA RIVER AT HWY 93A. ATHABASCA FALLS. LAT. 52D 39M 51S LONG. 117D 32M 50S
JASPER NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02061F TEMP. WATER DEG. C.	02061L TEMP. WATER DEG. C.	02041F SPECIFIC CONDUCT. USIE/CM	02041L SPECIFIC CONDUCT. USIE/CM	10301F PH PH UNITS	10301L PH PH UNITS	02073F TURBIDITY JTU	02073L TURBIDITY JTU
80-01-07	1415	417	.5	18.3	--	239.	8.4	8.0	2.6	2.7
80-02-04	1845	417	1.0	17.6	--	228.	8.5	7.9	5.2	8.3
80-04-21	1450	417	4.5	19.5	188.	189.	8.0	8.0	9.8	7.5
80-06-12	1400	417	2.5	17.9	185.	158.	8.4	8.1	--	8.8
80-08-18	1310	417	9.0	18.9	155.	149.	8.1	8.2	270.0	275.0
80-07-28	1530	417	10.0	21.5	--	462.	8.3	8.3	195.0	198.0
80-08-18	1500	417	9.0	17.1	132.	140.	8.1	8.2	39.0	81.0
80-09-15	1350	417	8.5	17.7	157.	170.	8.0	8.1	8.5	12.0
80-10-06	1320	417	7.0	19.3	166.	181.	8.2	8.1	15.0	21.0
80-11-10	1510	417	1.5	18.4	178.	210.	8.3	7.8	1.6	3.1
80-12-01	1540	417	0.0	18.4	200.	237.	7.8	8.2	2.1	4.3
81-01-12	1445	417	.5	19.9	200.	229.	8.2	8.0	1.5	2.8
81-02-09	1450	417	0.0	20.2	202.	236.	8.4	8.1	1.5	2.6
81-03-23	1230	417	.5	18.7	218.	227.	8.3	8.1	1.8	2.6
81-04-21	1220	417	3.5	21.1	209.	216.	8.3	8.1	2.9	4.6
81-06-11	1230	417	6.5	17.3	198.	211.	8.2	8.0	4.0	3.3
81-06-15	1235	417	8.0	17.7	167.	168.	8.2	8.1	22.0	18.0
81-07-06	1230	417	8.5	16.1	157.	144.	8.1	8.3	260.0	270.0
81-08-10	1515	417	11.0	23.9	130.	144.	8.1	8.3	G200.0	170.0
81-08-14	1220	417	8.5	23.2	152.	163.	7.9	8.2	--	14.0
81-10-06	1235	417	3.0	23.3	178.	187.	8.3	8.1	4.6	4.6
81-11-02	1230	417	5.5	16.5	185.	198.	8.1	8.0	4.6	3.8
81-12-07	1300	417	0.0	22.5	205.	207.	8.2	8.1	2.9	3.2

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02021L COLOUR TRUE REL. UNITS	10401L RESIDUE NONFILTR. MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	05717G CHLORO-PHYLL A MG/L	36002F COLIFORMS TOTAL MF NO/DL	36012F COLIFORMS FECAL MF NO/DL	36103F FECAL STREP. MF NO/DL
80-01-07	1415	417	5.	--	L1.	--	--	L2.	L2.	L2.
80-02-04	1845	417	5.	--	2.	--	--	L2.	L2.	L2.
80-04-21	1450	417	10.	--	11.	--	L.001	2.	L2.	L2.
80-06-12	1400	417	10.	--	13.	--	L.001	L2.	L2.	L2.
80-08-18	1310	417	100.	--	513.	--	.004	--	--	--
80-07-28	1530	417	90.	--	161.	--	--	--	--	--
80-08-18	1500	417	40.	--	80.	--	L.001	40.	L2.	12.
80-09-15	1350	417	10.	--	12.	--	L.001	6.	L2.	L2.
80-10-06	1320	417	20.	--	26.	--	L.001	L2.	L2.	2.
80-11-10	1510	417	20.	--	6.	--	L.001	2.	L2.	L2.
80-12-01	1540	417	20.	--	2.	--	L.001	3.	2.	L2.
81-01-12	1445	417	5.	--	3.	--	L.001	L2.	L2.	L2.
81-02-09	1450	417	L5.	--	4.	--	L.001	2.	2.	L2.
81-03-23	1230	417	--	5.	2.	--	L.001	L1.	L1.	L1.
81-04-21	1220	417	--	10.	6.	--	L.001	L1.	L1.	L1.
81-06-11	1230	417	--	10.	5.	--	L.001	1.	1.	L1.
81-06-15	1235	417	--	10.	26.	--	L.001	40.	L2.	L2.
81-07-06	1230	417	--	5.	236.	--	L.001	L10.	L2.	2.
81-08-10	1515	417	--	5.	174.	--	L.001	--	--	--
81-08-14	1220	417	--	20.	30.	--	L.001	4.	L2.	8.
81-10-06	1235	417	--	10.	7.	--	L.001	L1.	L1.	1.
81-11-02	1230	417	--	20.	3.	--	L.001	1.	1.	1.
81-12-07	1300	417	--	5.	3. 01R	--	.001 17T	1. 02U	L1. 12U	L1 03U

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0015
ATHABASCA RIVER AT HWY 93A. ATHABASCA FALLS. LAT. 52D 39M 51S LONG. 117D 52M 50S
JASPER NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08101W OXYGEN DISSOLVED O2 MG/L	06301L CARBONATE (CALCD.) CO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	06201L BICARBONT. (CALCD.) HCO3 MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	20103L CALCIUM DISSOLVED CA MG/L	12102L MAGNESIUM DISSOLVED MG MG/L	10802L HARDNESS TOTAL (CALCD.) CACO3 MG/L
80-01-07	1415	417	12.5	0.	0.0	110.	90.0 08L	29.50	10.2	115.7
80-02-04	1645	417	12.9	0.	0.0	104.	85.0 08L	27.80	10.4	112.2
80-04-21	1450	417	12.2	0.	0.0	89.	73.0	23.70	7.4	89.6
80-06-12	1400	417	10.5	0.	0.0	83.	68.0	21.00	6.6	79.6
80-08-18	1310	417	11.2	0.	0.0	84.	69.0	21.50	5.3	75.5
80-07-28	1530	417	10.9	0.	0.0	83.	68.0	20.00	4.8	69.7
80-08-18	1500	417	9.8	0.	0.0	77.	63.0	21.30	5.2	74.6
80-09-15	1350	417	11.2	0.	0.0	83.	68.0	22.20	7.3	85.5
80-10-06	1320	417	10.5	0.	0.0	85.	70.0	22.90	6.8	85.2
80-11-10	1510	417	13.8	0.	0.0	98.	80.0	26.00	9.0	102.0
80-12-01	1540	417	12.3	0.	0.0	109.	89.0	28.80	9.7	111.9
81-01-12	1445	417	12.0	0.	0.0	105.	86.0	28.00	9.4	108.6
81-02-09	1450	417	12.2	0.	0.0	107.	88.0	28.70	10.8	116.1
81-03-23	1230	417	12.0	0.	0.0	108.	87.0	28.20	10.0	111.8
81-04-21	1220	417	11.4	0.	0.0	98.	81.0	27.50	11.0	114.0
81-06-11	1230	417	10.5	0.	0.0	105.	86.0	28.10	7.1	99.4
81-06-16	1235	417	10.3	0.	0.0	85.	70.0	21.90	7.3	84.7
81-07-06	1230	417	10.0	0.	0.0	83.	68.0	20.20	5.3	72.3
81-08-10	1515	417	10.5	0.	0.0	79.	65.0	21.20	4.8	73.1
81-08-14	1220	417	10.8	0.	0.0	82.	67.0	22.40	5.0	80.6
81-10-06	1235	417	11.6	0.	0.0	89.	73.0	24.10	6.0	93.1
81-11-02	1230	417	11.3	0	0.0	90.	74.0	23.70	8.1	92.5
81-12-07	1300	417	12.1	0.	0.0	105.	86.0	28.80	9.1	109.4

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	00201L TOTAL DISSOLVED SOLIDS (CALCD.) MG/L	11103L SODIUM DISSOLVED NA MG/L	19103L POTASSIUM DISSOLVED K MG/L	17206L CHLORIDE DISSOLVED CL MG/L	09105L FLUORIDE DISSOLVED F MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	14105L SILICA REACTIVE SIO2 MG/L	16104P SULFIDE DISSOLVED S MG/L
80-01-07	1415	417	120.	1.1	.3	.5	.05	20.	4.5	--
80-02-04	1645	417	115.	1.0	.3	.4	.05	20.	4.3	--
80-04-21	1450	417	94.	.9	.4	.5	.06	13.	4.1	--
80-06-12	1400	417	83.	.5	.3	.3	L.05	11.	2.8	--
80-08-18	1310	417	79.	.4	1.0	.2	.05	7.	2.3	--
80-07-28	1530	417	76.	.3	.2	.2	L.05	8.	1.7	--
80-08-18	1500	417	75.	.4	.2	.2	L.05	8.	2.2	--
80-09-15	1350	417	87.	.7	.2	.2	.07	13.	3.0	--
80-10-06	1320	417	89.	.8	.3	.3	.09	13.	2.7	--
80-11-10	1510	417	103.	1.0	.2	.3	.09	18.	2.7	--
80-12-01	1540	417	118.	1.0	.3	.4	.06	20.	4.3	--
81-01-12	1445	417	114.	.8	.3	.4	.08	19.	4.2	--
81-02-09	1450	417	118.	.8	.2	.5	.08	20.	4.2	--
81-03-23	1230	417	116.	1.0	.3	.3	.09	20.	4.6	--
81-04-21	1220	417	114.	.9	.4	.4	.10	21.	4.1	--
81-06-11	1230	417	109.	1.0	.3	.4	L.05	16.	4.8	--
81-06-16	1235	417	86.	.6	.2	.3	L.05	11.	3.1	--
81-07-06	1230	417	78.	.4	.2	.2	L.05	7.	2.2	--
81-08-10	1515	417	75.	.3	.1	.2	L.05	7.	1.8	--
81-08-14	1220	417	82.	.5	.2	.2	.07	10.	2.2	--
81-10-06	1235	417	95.	.6	.3	.3	.09	15.	3.2	--
81-11-02	1230	417	98.	.9	.3	.5	.06	16.	3.6	--
81-12-07	1300	417	117.	.8	.3	.3	.05	22.	3.9	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0015 — LAT 52D 38M 51S LONG 117D 52M 50S
ATHABASCA RIVER AT HWY 93A. ATHABASCA FALLS. JASPER NATIONAL PARK ALBERTA

DATE YRD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15406L PHOSPHORUS TOTAL P MG/L	15103D PHOSPHORUS TOTAL DISSOLVED P MG/L	15901L PHOSPHORUS PARTICULATE (CALCD.) P MG/L	07110D NITROGEN DISSOLVED NO3 & NO2 N MG/L	07851D NITROGEN DISSOLVED N MG/L	07851L NITROGEN DISSOLVED N MG/L	07902L NITROGEN PARTICUL N MG/L	07803L NITROGEN TOTAL (CALCD.) N MG/L
80-01-07	1415	417	L 003	L 003 03L	00 000	14 10L	--	16	L 01	0 17
80-02-04	1645	417	007	L 003 03L	0 004	11 10L	--	11	02	13
80-04-21	1450	417	010	010	0 000	07	13	18	L 01	0 17
80-06-12	1400	417	010	L 003	0 007	08	10	11	L 01	0 12
80-08-18	1310	417	210	005	205	07	08	07	25	32
80-07-28	1530	417	--	L 002 03L	--	05 10L	--	05	11	16
80-08-18	1500	417	026	L 003	0 023	04	05	09	06	15
80-09-15	1350	417	003	--	--	05	06	07	01	08
80-10-06	1320	417	012	L 003	0 009	06	07	08	03	11
80-11-10	1510	417	004	L 003	0 001	09	09	13	58	71
80-12-01	1540	417	L 003	L 003	00 000	11	11	12	L 01	0 14
81-01-12	1445	417	003	L 002	00 000	11	12	11	02	13
81-02-09	1450	417	004	L 003	0 001	12	13	13	L 01	0 14
81-03-23	1230	417	005	L 003	0 002	09	10	11	L 01	0 12
81-04-21	1220	417	L 003	L 003	00 000	08	11	15	L 01	0 16
81-06-11	1230	417	033	L 003	0 030	08	11	11	L 01	0 12
81-08-15	1235	417	016	003	013	06	08	09	02	11
81-07-06	1230	417	074	006	068	06	07	09	08	17
81-08-10	1515	417	070	L 002	0 067	04	05	07	L 01	0 08
81-08-14	1220	417	013	003	010	05	10	07	L 01	0 08
81-10-05	1235	417	004	003	001	06	07	07	L 01	0 08
81-11-02	1230	417	006	L 003	0 003	08	08	13	L 01	0 14
81-12-07	1300	417	L 003 08R	L 003 03V	00 000	08 10V	10 51V	10 51R	L 01 02R	0 11

DATE YRD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07508P NITROGEN TOTAL AMMONIA N MG/L	15258D PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L	06152L CARBON DISSOLVED INORGANIC C MG/L	06104L CARBON DISSOLVED ORGANIC C MG/L	06902L CARBON ORGANIC PARTICUL C MG/L	06042L CARBON TOTAL ORGANIC (CALCD.) MG/L	03301P LITHIUM EXTRACTABLE LI MG/L	13302P ALUMINUM EXTRACTABLE AL MG/L
80-01-07	1415	417	--	--	32 0	1 0	10	1 1	--	--
80-02-04	1645	417	--	--	19 0	1 0	15	1 2	--	--
80-04-21	1450	417	--	--	--	3 0 04D	--	--	--	--
80-06-12	1400	417	--	--	--	1 0 04D	--	--	--	--
80-08-18	1310	417	--	--	--	1 0 04D	--	--	--	--
80-07-28	1530	417	--	--	--	L1 0	7 90	08 9	--	--
80-08-18	1500	417	--	--	--	L1 0 04D	3 70	04 7	--	--
80-09-15	1350	417	--	--	--	L1 0 04D	33	01 3	--	--
80-10-06	1320	417	-	-	--	L1 0 04D	1 80	02 6	-	-
80-11-10	1510	417	--	--	--	L1 0 04D	17	01 2	--	--
80-12-01	1540	417	--	--	--	L1 0 04D	05	01 1	--	--
81-01-12	1445	417	--	--	--	L1 0 04D	13	01 1	--	--
81-02-09	1450	417	--	--	--	L1 0 04D	19	01 2	--	--
81-03-23	1230	417	--	--	--	4	20	6	--	--
81-04-21	1220	417	--	--	--	--	28	--	--	--
81-06-11	1230	417	L 1	--	--	1 9	30	2 2	--	--
81-08-15	1235	417	L 1	--	--	1 0	98	2 0	--	--
81-07-06	1230	417	L 1	--	--	5	10 00	10 5	--	--
81-08-10	1515	417	L 1	--	--	6	8 80	9 4	--	--
81-08-14	1220	417	L 1	--	--	1 0	1 20	2 2	--	--
81-10-05	1235	417	L 1	--	--	4	18	6	--	--
81-11-02	1230	417	L 1	--	--	1 3	15	1 5	--	--
81-12-07	1300	417	L 1 08H	--	--	4 04R	07 02R	5	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 07AL07AA0015
ATHABASCA RIVER AT HWY 93A. ATHABASCA FALLS. LAT. 52D 39M 51S LONG. 117D 52M 50S
JASPER NATIONAL PARK, ALBERTA

DATE YR/MO/AN	TIME/ HEURE	SUB-ID/ SOUS-ID	05105L BORON DISSOLVED B MG/L	33104D ARSENIC DISSOLVED AS MG/L	34102D SELENIUM DISSOLVED SE MG/L	25304P MANGANESE EXTRBLE. MN MG/L	25104G MANGANESE DISSOLVED MN MG/L	26304P IRON EXTRBLE. FE MG/L	26104G IRON DISSOLVED FE MG/L	80011P MERCURY TOTAL HG UG/L
80-01-07	1415	417	--	--	--	--	--	--	--	L 02
80-02-04	1645	417	--	--	--	--	--	--	--	L 02
80-04-21	1450	417	04	L 0005 04L	L 0005 02L	--	L 01	--	L 04	L 02
80-06-12	1400	417	L 02	L 0005	L 0005	--	L 01	--	L 04	L 02
80-06-18	1310	417	L 02	L 0005	L 0005	--	L 01	--	L 04	03
80-07-28	1530	417	L 02	L 0005 04L	L 0005 02L	--	--	--	--	03
80-08-18	1500	417	04	L 0005	L 0005	--	L 01	--	L 04	L 02
80-09-15	1250	417	L 02	L 0005	L 0005	--	L 01	--	L 04	L 02
80-10-06	1320	417	L 02	L 0005	L 0005	--	L 01	--	L 04	L 02
80-11-10	1510	417	04	L 0005	L 0005	--	L 01	--	L 04	L 02
80-12-01	1540	417	03	L 0005	L 0005	--	02	--	L 04	L 02
81-01-12	1445	417	04	L 0005	L 0005	--	L 01	--	L 04	L 02
81-02-09	1450	417	04	L 0005	L 0005	--	L 01	--	L 04	L 02
81-03-23	1230	417	04	L 0005	L 0005	--	L 01	--	L 04	L 02
81-04-21	1220	417	L 02	L 0005	L 0005	--	L 01	--	L 04 04L	L 02
81-05-11	1230	417	04	L 0005	L 0005	--	L 01	--	L 04	L 02
81-06-15	1235	417	L 02	L 0005	L 0005	--	L 01	--	L 04	L 02
81-07-06	1230	417	02	L 0005	L 0005	--	L 01	--	L 04	L 02
81-08-10	1515	417	L 02	L 0005	L 0005	--	L 01	--	06	L 02
81-08-14	1220	417	05 05D	L 0005	L 0005	--	L 01	--	L 04	L 02
81-10-05	1235	417	03 05D	L 0005	L 0005	--	L 01	--	L 04	L 02
81-11-02	1230	417	03 05D	L 0005	L 0005	--	L 01	--	L 04	L 02
81-12-07	1300	417	03 05V	L 0005 04V	L 0005 02V	--	L 01 04T	--	L 04 04T	L 02 11W

FOOTNOTE L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0023
ATHABASCA RIVER AT HWY 16 BRIDGE BELOW CONFLUENCE WITH SNARING RIVER. LAT. 53D 2M 30S LONG. 118D 9M 13S JASPER NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02061F TEMP. WATER DEG. C.	02061L TEMP. WATER DEG. C.	02041F SPECIFIC CONDUCT. USIE/CM	02041L SPECIFIC CONDUCT. USIE/CM	10301F PH PH UNITS	10301L PH PH UNITS	02073F TURBIDITY JTU	02073L TURBIDITY JTU
80-01-07	1730	417	.2	18.0	220.	276.	8.5	8.1	5.2	4.5
80-02-04	1615	417	1.0	17.9	--	271.	8.3	7.9	--	7.5
80-03-04	1315	417	.5	22.2	250.	294.	8.4	8.0	1.4	2.4
80-04-21	1655	417	5.0	20.3	188.	209.	8.3	8.0	--	.9
80-05-12	1530	417	8.0	17.7	135.	146.	8.3	8.0	--	5.2
80-06-16	1445	417	11.5	18.6	132.	148.	7.6	8.2	150.0	180.0
80-07-28	1830	417	13.0	21.7	--	145.	8.2	8.2	140.0	120.0
80-08-18	1710	417	10.0	17.1	139.	143.	8.0	8.1	20.0	46.0
80-09-15	1535	417	7.0	17.7	165.	186.	8.0	8.3	4.2	4.3
80-10-06	1600	417	9.5	19.3	164.	185.	8.4	8.4	4.4	4.3
80-11-10	1845	417	2.5	19.2	192.	224.	8.4	8.2	1.0	1.7
80-12-01	1715	417	0.0	19.4	237.	268.	7.8	8.2	2.6	2.9
81-01-12	1640	417	0.0	20.1	218.	253.	8.2	8.0	.9	2.1
81-02-09	1535	417	0.0	20.2	249.	294.	8.4	8.1	1.0	2.5
81-03-23	1410	417	2.0	18.6	249.	261.	8.6	8.4	2.0	2.6
81-04-21	1410	417	6.0	20.8	240.	247.	8.3	8.2	5.5	5.3
81-05-11	1400	417	7.5	18.4	204.	219.	8.1	8.1	5.0	3.7
81-06-15	1435	417	8.5	17.1	156.	160.	8.2	8.1	6.2	4.8
81-07-06	1345	417	10.0	16.7	137.	141.	8.1	8.3	120.0	73.0
81-08-11	0725	417	11.0	24.6	--	141.	8.0	8.2	198.0	76.0
81-09-14	1500	417	9.0	23.2	164.	170.	8.1	8.2	--	16.0
81-10-05	1430	417	4.5	23.3	190.	199.	8.1	8.2	3.4	2.7
81-11-02	1400	417	5.0	15.6	187.	192.	8.2	8.2	5.4	3.9
81-12-07	1530	417	0.0	22.3	224.	228.	8.2	8.1	2.3	1.9

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02021L COLOUR TRUE REL. UNITS	10401L RESIDUE NONFILTR. MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	05717G CHLORO-PHYLL A MG/L	36002F COLIFORMS TOTAL MF NO/DL	36012F COLIFORMS FECAL MF NO/DL	36103F FECAL STREP. MF NO/DL
80-01-07	1730	417	5.	--	11.	--	--	8.	L2.	L2.
80-02-04	1615	417	5.	--	5. 01R	--	--	L2. 02U	L2. 12U	L2. 03U
80-03-04	1315	417	5.	--	3.	--	--	L2.	L2.	L2.
80-04-21	1655	417	10.	--	13.	--	.001	3.	L2.	2.
80-05-12	1530	417	10.	--	12.	--	L.001	11.	L2.	L2.
80-06-16	1445	417	100.	--	394.	--	L.001	--	--	--
80-07-28	1830	417	40.	--	125.	--	--	--	--	--
80-08-18	1710	417	40.	--	37.	--	L.001	140.	26.	52.
80-09-15	1535	417	10.	--	6.	--	L.001	14.	L2.	4.
80-10-06	1600	417	20.	--	9.	--	.004	L2.	L2.	15.
80-11-10	1845	417	20.	--	3.	--	.004	3.	L2.	L2.
80-12-01	1715	417	20.	--	11.	--	L.001	8.	L2.	8.
81-01-12	1640	417	5.	--	8.	--	L.001	8.	L2.	L2.
81-02-09	1535	417	L5.	--	3.	--	L.001	7.	5.	L2.
81-03-23	1410	417	--	5.	4.	--	L.001	L1.	L1.	L1.
81-04-21	1410	417	--	10.	11. 01R	--	.002	L1. 02U	L1. 12U	L1. 03U
81-05-11	1400	417	--	10.	9.	--	.001	3.	L1.	2.
81-06-15	1435	417	--	10.	7.	--	L.001	70.	3.	4.
81-07-06	1345	417	--	5.	48.	--	L.001	42.	10.	8.
81-08-11	0725	417	--	5.	107.	--	.005	80.	30.	25.
81-08-14	1500	417	--	20.	12.	--	L.001	10.	L2.	L2.
81-10-06	1430	417	--	5.	5.	--	L.001	1.	L1.	1.
81-11-02	1400	417	--	20.	5.	--	.009	4.	L1	3.
81-12-07	1530	417	--	5.	1.	--	.004	14.	L1.	L1.

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0023
ATHABASCA RIVER AT HWY 16 BRIDGE BELOW CONFLUENCE WITH SNARING RIVER. LAT. 53D 2M 30S LONG. 118D 5M 13S JASPER NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08101H OXYGEN DISSOLVED SO 02 MG/L	06301L CARBONATE (CALCD.) CO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	06201L BICARBONT. (CALCD.) HCO3 MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	20103L CALCIUM DISSOLVED CA MG/L	12102L MAGNESIUM DISSOLVED MG MG/L	10602L HARDNESS TOTAL (CALCD.) CACO3 MG/L
80-01-07	1730	417	12.0	0.	0.0	122.	100.0 06L	34.30	11.6	133.4
80-02-04	1615	417	12.4	0.	0.0	118.	97.0 06L	32.00	14.7	140.4
80-03-04	1315	417	12.5	0.	0.0	118.	97.0 06L	33.00	12.4	133.5
80-04-21	1655	417	12.8	0.	0.0	99.	81.0	26.40	8.5	100.9
80-05-12	1530	417	10.3	0.	0.0	73.	60.0	20.00	6.2	75.5
80-06-16	1445	417	10.7	0.	0.0	81.	66.0	19.80	5.4	71.7
80-07-28	1830	417	10.7	0.	0.0	73.	60.0	20.80	5.0	72.5
80-08-18	1710	417	10.6	0.	0.0	73.	60.0	22.00	5.6	78.0
80-09-15	1535	417	12.0	0.	0.0	83.	68.0	22.40	7.5	86.2
80-10-06	1600	417	11.6	0.	0.0	83.	68.0	22.80	6.8	84.8
80-11-10	1645	417	14.2	0.	0.0	96.	79.0	26.80	9.2	104.8
80-12-01	1715	417	12.1	0.	0.0	118.	97.0	32.70	10.7	125.7
81-01-12	1640	417	12.2	0.	0.0	112.	92.0	30.30	9.9	115.4
81-02-09	1635	417	13.1	0.	0.0	132.	108.0	35.50	13.0	142.2
81-03-23	1410	417	14.0	0.	0.0	117.	96.0	32.30	10.6	124.3
81-04-21	1410	417	11.9	0.	0.0	109.	89.0	31.00	11.0	122.7
81-05-11	1400	417	11.0	0.	0.0	106.	87.0	29.80	8.8	110.1
81-06-15	1435	417	10.7	0.	0.0	74.	61.0	20.50	6.3	77.1
81-07-06	1345	417	9.9	0.	0.0	68.	56.0	20.20	5.6	73.5
81-08-11	0725	417	9.9	0.	0.0	73.	60.0	21.80	5.3	76.3
81-08-14	1500	417	10.5	0.	0.0	81.	66.0	22.80	6.2	82.5
81-10-06	1430	417	11.5	0.	0.0	90.	74.0	24.90	8.1	95.5
81-11-02	1400	417	11.9	0.	0.0	83.	68.0	23.90	8.6	95.1
81-12-07	1530	417	12.6	0.	0.0	111.	91.0	31.40	10.1	120.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	00201L TOTAL DISSOLVED SOLIDS (CALCD.) MG/L	11103L SODIUM DISSOLVED NA MG/L	19103L POTASSIUM DISSOLVED K MG/L	17206L CHLORIDE DISSOLVED CL MG/L	09105L FLUORIDE DISSOLVED F MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	14105L SILICA REACTIVE SIO2 MG/L	16104P SULFIDE DISSOLVED S MG/L
80-01-07	1730	417	142.	1.9	.4	1.0	.08	28.	4.4	--
80-02-04	1615	417	140.	1.8	.4	1.1	.17	27.	4.4	--
80-03-04	1315	417	139.	2.1	.5	1.2	.10	27.	4.8	--
80-04-21	1655	417	109.	1.4	.5	.8	.08	19.	3.8	--
80-05-12	1530	417	77.	.5	.3	.4	L.05	12.	1.2	--
80-06-16	1445	417	77.	.4	.2	.4	L.05	9.	2.2	--
80-07-28	1830	417	76.	.5	.3	.3	.06	11.	2.0	--
80-08-18	1710	417	78.	.6	.2	.4	L.05	11.	2.3	--
80-09-15	1535	417	91.	.9	.2	.4	.06	16.	3.0	--
80-10-06	1600	417	91.	1.1	.3	.3	.07	15.	2.9	--
80-11-10	1645	417	110.	1.4	.3	.7	.10	22.	2.6	--
80-12-01	1715	417	135.	1.8	.5	.8	.07	26.	4.6	--
81-01-12	1640	417	125.	1.4	.5	.9	.10	23.	4.2	--
81-02-09	1635	417	147.	1.8	.4	1.0	.07	26.	4.6	--
81-03-23	1410	417	134.	1.7	.4	.9	.11	26.	4.1	--
81-04-21	1410	417	126.	1.2	.4	.8	.11	24.	3.7	--
81-05-11	1400	417	117.	1.4	.4	.8	.08	20.	4.2	--
81-06-15	1435	417	81.	.6	.2	.3	L.05	13.	3.0	--
81-07-06	1345	417	72.	.5	.2	.3	L.05	9.	2.4	--
81-08-11	0725	417	76.	.3	.2	.2	L.05	10.	2.1	--
81-08-14	1500	417	86.	.6	.2	.3	.08	14.	2.4	--
81-10-06	1430	417	101.	1.0	.3	.5	.08	19.	3.0	--
81-11-02	1400	417	99.	1.3	.3	.7	.05	20.	3.0	--
81-12-07	1530	417	128.	1.3	.4	.8	.06	26.	3.8	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0023
ATHABASCA RIVER AT HWY 16 BRIDGE BELOW CONFLUENCE WITH SNARING RIVER, JASPER NATIONAL PARK, ALBERTA
LAT. 53D 2M 30S LONG. 118D 8M 13S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15408L PHOSPHORUS TOTAL P MG/L	15103D PHOSPHORUS TOTAL DISSOLVED P MG/L	15901L PHOSPHORUS PARTICULATE (CALCD.) P MG/L	07110D NITROGEN DISSOLVED NO3 & NO2 N MG/L	07851D NITROGEN DISSOLVED N MG/L	07851L NITROGEN DISSOLVED N MG/L	07902L NITROGEN PARTICUL. N MG/L	07603L NITROGEN TOTAL (CALCD.) N MG/L
80-01-07	1730	417	.023	.012 03L	.011	.14 10L	--	.19	.08	.27
80-02-04	1815	417	.009 06R	.008 03R	.001	.12 10R	--	.15 51R	.02 02R	.17
80-03-04	1315	417	.011	.007 03L	.004	.18 10L	--	.20	L.01	Q.21
80-04-21	1855	417	.010	--	--	.08	.12	.14	.07	.21
80-06-12	1530	417	.010	L.003	Q.007	.05	.10	.12	7.10	7.22
80-08-16	1445	417	.025	L.003	Q.022	.05	.08	.07	.10	.17
80-07-28	1630	417	--	L.003 03L	--	.05 10L	--	.05	.08	.13
80-08-18	1710	417	.030	.003	.027	.04	.07	.12	.08	.20
80-08-15	1535	417	.004	L.003	Q.001	.03	.04	.07	.01	.08
80-10-06	1800	417	.005	L.003	Q.002	.03	.06	.04	.05	.09
80-11-10	1845	417	.004	L.003	Q.001	.07	.08	.11	.07	.18
80-12-01	1715	417	.007	.003	.004	.11	.12	.13	.04	.17
81-01-12	1840	417	.006	.006	0.000	.10	.12	.13	.02	.15
81-02-09	1835	417	.012	.004	.008	.12	.17	.18	.05	.21
81-03-23	1410	417	.004	L.003	Q.001	.04	.07	.07	L.01	Q.08
81-04-21	1410	417	.009 06R	L.003 03V	Q.006	.05 10V	.10 51V	.10 51R	.01 02R	.11
81-06-11	1400	417	.005	.005	0.000	.06	.10	.10	.03	.13
81-06-15	1435	417	.008	.004	.004	.04	.07	.07	.02	.09
81-07-06	1345	417	.048	.004	.044	.05	.07	.07	.05	.12
81-08-11	0725	417	.060	L.003	Q.057	.04	.05	.05	L.01	Q.06
81-09-14	1500	417	.013	L.003	Q.010	.05	.06	.06	L.01	Q.07
81-10-05	1430	417	.005	.003	.002	.05	.07	.07	L.01	Q.08
81-11-02	1400	417	.010	.003	.007	.05	.09	.09	L.01	Q.10
81-12-07	1530	417	.003	L.003	00.000	.08	.11	.11	L.01	Q.12

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07506P NITROGEN TOTAL AMMONIA N MG/L	15256D PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L	06152L CARBON DISSOLVED INORGANIC C MG/L	06104L CARBON DISSOLVED ORGANIC C MG/L	06902L CARBON ORGANIC PARTICUL. C MG/L	06002L CARBON TOTAL ORGANIC (CALCD.) MG/L	03301P LITHIUM EXTRBLE. LI MG/L	13302P ALUMINUM EXTRBLE. AL MG/L
80-01-07	1730	417	--	--	25.0	1.0	.74	1.7	--	--
80-02-04	1815	417	--	--	20.0 52R	1.0 04R	.15 02R	1.2	--	--
80-03-04	1315	417	--	--	18.0	L1.0	.01	Q1.0	--	--
80-04-21	1855	417	--	--	--	2.0 04D	--	--	--	--
80-06-12	1530	417	--	--	--	2.0 04D	--	--	--	--
80-08-16	1445	417	--	--	--	1.0 04D	2.20	3.2	--	--
80-07-28	1630	417	--	--	--	L1.0	7.80	Q8.8	--	--
80-08-18	1710	417	--	--	--	L1.0 04D	2.60	Q3.6	--	--
80-08-15	1535	417	--	--	--	L1.0 04D	.28	Q1.3	--	--
80-10-06	1800	417	--	--	15.0 52D	L1.0 04D	.38	Q1.4	--	--
80-11-10	1845	417	--	--	--	L1.0 04D	.29	Q1.3	--	--
80-12-01	1715	417	--	--	--	L1.0 04D	.40	Q1.4	--	--
81-01-12	1840	417	--	--	--	L1.0 04D	.23	Q1.2	--	--
81-02-09	1835	417	--	--	--	L1.0 04D	.42	Q1.4	--	--
81-03-23	1410	417	--	--	--	.5	.41	.9	--	--
81-04-21	1410	417	--	--	--	--	.32 02R	--	--	--
81-06-11	1400	417	L.1	--	--	1.9	.32	2.2	--	--
81-06-15	1435	417	L.1	--	--	1.2	.32	1.5	--	--
81-07-06	1345	417	L.1	--	--	.7	3.80	4.5	--	--
81-08-11	0725	417	L.1	--	--	.4	5.00	5.4	--	--
81-08-14	1500	417	L.1	--	--	.5	.74	1.2	--	--
81-10-05	1430	417	L.1	--	--	.4	.20	.6	--	--
81-11-02	1400	417	L.1	--	--	1.2	.38	1.6	--	--
81-12-07	1530	417	L.1	--	--	.5	.15	.7	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0023
ATHABASCA RIVER AT HWY 16 BRIDGE BELOW CONFLUENCE WITH SNARING RIVER, JASPER NATIONAL PARK, ALBERTA
LAT. 53D 2M 30S LONG. 118D 8M 13S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	05105L BORON DISSOLVED B MG/L	33104D ARSENIC DISSOLVED AS MG/L	34102D SELENIUM DISSOLVED SE MG/L	25304P MANGANESE EXTRBLE. MN MG/L	25104G MANGANESE DISSOLVED MN MG/L	26304P IRON EXTRBLE. FE MG/L	26104G IRON DISSOLVED FE MG/L	80011P MERCURY TOTAL HG UG/L
80-01-07	1730	417	.02	L.0005 04L	L.0005 02L	.02	--	.24	--	L.02
80-02-04	1615	417	L.02	L.0005 04L	L.0005 02L	L.01 04W	--	.06 04W	--	L.02 11W
80-03-04	1315	417	.04	L.0005 04L	L.0005 02L	L.01	--	.13	--	.02
80-04-21	1855	417	.03	L.0005 04L	L.0005 02L	--	L.01	--	.04	L.02
80-05-12	1530	417	.03	L.0003	L.0005	--	L.01	--	L.04	L.02
80-06-16	1445	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-07-28	1830	417	L.02	L.0005 04L	L.0005 02L	--	--	--	--	L.02
80-08-18	1710	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-09-15	1535	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-10-06	1600	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-11-10	1845	417	.06	L.0005	L.0005	--	L.01	--	L.04	L.02
80-12-01	1715	417	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-01-12	1840	417	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
81-02-08	1835	417	.06	L.0005	L.0005	--	L.01	--	L.04	L.02
81-03-23	1410	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-04-21	1410	417	.03 05R	L.0005 04V	L.0005 02V	--	L.01 04T	--	L.04 04T	.02
81-05-11	1400	417	L.02	.0006	.0017	--	L.01	--	L.04	L.02 11W
81-06-15	1435	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-07-06	1345	417	.02	L.0005	.0008	--	L.01	--	L.04	L.02
81-08-11	0725	417	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-09-14	1500	417	.04 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-10-06	1430	417	.02 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-11-02	1400	417	.04 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-12-07	1530	417	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	23302P VANADIUM EXTRBLE. V MG/L	23020P VANADIUM TOTAL RECOVERABLE VA MG/L	24302P CHROMIUM EXTRBLE. CR MG/L	27302P COBALT EXTRBLE. CO MG/L	27020P COBALT TOTAL RECOVERABLE CO MG/L	28302P NICKEL EXTRBLE. NI MG/L	28020P NICKEL TOTAL RECOVERABLE NI MG/L	47301P SILVER EXTRBLE. AG MG/L
80-01-07	1730	417	L.001	--	--	L.002	--	--	--	--
80-02-04	1615	417	L.001 02W	--	--	.002 02W	--	--	--	--
80-03-04	1315	417	L.001	--	--	L.002	--	--	--	--
80-04-21	1855	417	--	.003	--	--	.003	--	L.002	--
80-05-12	1530	417	--	.001	--	--	.003	--	.010	--
80-06-16	1445	417	--	.007	--	--	.003	--	.015	--
80-07-28	1830	417	--	L.001	--	--	.004	--	.007	--
80-08-18	1710	417	--	L.001	--	--	L.002	--	.002	--
80-09-15	1535	417	--	L.001	--	--	L.002	--	L.002	--
80-10-06	1600	417	--	L.001	--	--	L.002	--	.003	--
80-11-10	1845	417	--	.002	--	--	L.002	--	.004	--
80-12-01	1715	417	--	.003	--	--	L.002	--	L.002	--
81-01-12	1840	417	--	.002	--	--	007	--	.012	--
81-02-08	1835	417	--	L.001	--	--	.003	--	006	--
81-03-23	1410	417	--	L.001	--	--	002	--	L.002	--
81-04-21	1410	417	--	L.001 20W	--	--	L.002 20W	--	--	--
81-05-11	1400	417	--	L.001	--	--	004	--	--	--
81-06-15	1435	417	--	.002	--	--	L.002	--	--	--
81-07-06	1345	417	--	L.001	--	--	L.002	--	.004	--
81-08-11	0725	417	--	L.001	--	--	L.002	--	002	--
81-09-14	1500	417	--	L.001	--	--	.002	--	L.002	--
81-10-06	1430	417	--	L.001	--	--	L.002	--	L.002	--
81-11-02	1400	417	--	L.001	--	--	L.002	--	L.002	--
81-12-07	1530	417	--	L.001	--	--	L.002	--	.002	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0023 LAT. 53D 2M 30S LONG. 118D 5M 13S
ATHABASCA RIVER AT HWY 16 BRIDGE BELOW CONFLUENCE WITH SNARING RIVER, JASPER NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE. CU MG/L	29020P COPPER TOTAL RECOVERABLE CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	30020P ZINC TOTAL RECOVERABLE ZN MG/L	38301P STRONTIUM EXTRBLE. SR MG/L	42301P MOLYBDENUM EXTRBLE. MO MG/L	48302P CADMIUM EXTRBLE. CD MG/L	48020P CADMIUM TOTAL RECOVERABLE CD MG/L
80-01-07	1730	417	.001	--	.001	--	--	--	L.001	--
80-02-04	1815	417	.001 05W	--	.006 05W	--	--	--	L.001 02W	--
80-03-04	1315	417	.001	--	.002	--	--	--	L.001	--
80-04-21	1855	417	--	.005	--	.003	--	--	--	L.001
80-05-12	1530	417	--	.001	--	.003	--	--	--	.001
80-06-16	1445	417	--	.007	--	.018	--	--	--	L.001
80-07-28	1630	417	--	.003	--	.012	--	--	--	L.001
80-08-18	1710	417	--	.001	--	.002	--	--	--	L.001
80-09-15	1535	417	--	.001	--	.005	--	--	--	L.001
80-10-06	1800	417	--	.001	--	.003	--	--	--	L.001
80-11-10	1845	417	--	.004	--	.002	--	--	--	L.001
80-12-01	1715	417	--	L.001	--	.002	--	--	--	L.001
81-01-12	1640	417	--	.003	--	.004	--	--	--	.001
81-02-09	1635	417	--	.003	--	.007	--	--	--	L.001
81-03-23	1410	417	--	.002	--	.003	--	--	--	L.001
81-04-21	1410	417	--	.005 20W	--	--	--	--	--	L.001 20W
81-05-11	1400	417	--	.004	--	--	--	--	--	.004
81-06-15	1435	417	--	L.001	--	.001	--	--	--	L.001
81-07-06	1345	417	--	.001	--	.011	--	--	--	L.001
81-08-11	0725	417	--	L.001	--	.004	--	--	--	L.001
81-09-14	1500	417	--	L.001	--	.006	--	--	--	L.001
81-10-05	1430	417	--	.001	--	.003	--	--	--	L.001
81-11-02	1400	417	--	.002	--	.002	--	--	--	L.001
81-12-07	1530	417	--	L.001	--	L.001	--	--	--	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	56301P BARIUM EXTRBLE. BA MG/L	56020P BARIUM TOTAL RECOVERABLE BA MG/L	82302P LEAD EXTRBLE. PB MG/L	82020P LEAD TOTAL RECOVERABLE PB MG/L	06604P CYANIDE DISSOLVED CN MG/L	06535P PHENOLIC MATERIAL PHENOL MG/L	06500P N-ALKANES C10 - C28 UG/L	06510P AROMATIC HYDROC. UG/L
80-01-07	1730	417	.05	--	L.004	--	L.001	.002	--	--
80-02-04	1815	417	.05 01W	--	L.004 02W	--	L.001 04W	L.001 35W	--	--
80-03-04	1315	417	.05	--	L.004	--	.001	L.001	--	--
80-04-21	1855	417	--	.06	--	L.004	.001	.001	--	--
80-05-12	1530	417	--	L.05	--	L.004	L.001	.003	--	--
80-06-16	1445	417	--	.08	--	.005	.002	L.001	--	--
80-07-28	1630	417	--	L.05	--	L.004	.001	004	--	--
80-08-18	1710	417	--	L.05	--	L.004	L.001	L.001	--	--
80-09-15	1535	417	--	L.05	--	L.004	001	L.001	--	--
80-10-06	1800	417	--	L.05	--	L.004	L.001	L.001	--	--
80-11-10	1845	417	--	L.05	--	L.004	.002	L.001	--	--
80-12-01	1715	417	--	L.05	--	L.004	.004	001	--	--
81-01-12	1640	417	--	L.05	--	L.004	.006	L.001	--	--
81-02-09	1635	417	--	.07	--	L.004	.004	L.001	--	--
81-03-23	1410	417	--	L.05	--	L.004	.004	L.001	--	--
81-04-21	1410	417	--	.08 20W	--	L.004 20W	.002	L.001 35W	--	--
81-05-11	1400	417	--	L.05	--	.007	.002	L.001	--	--
81-06-15	1435	417	--	.07	--	.004	L.001	L.001	--	--
81-07-06	1345	417	--	.05	--	L.004	.002	L.001	--	--
81-08-11	0725	417	--	.05	--	.004	004	L.001	--	--
81-08-14	1500	417	--	L.05	--	L.004	L.001	005	--	--
81-10-05	1430	417	--	.05	--	L.004	L.001	L.001	--	--
81-11-02	1400	417	--	L.05	--	L.004	001	.001	--	--
81-12-07	1530	417	--	.06	--	L.004	L.001	L.001	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0023
ATHABASCA RIVER AT HWY 16 BRIDGE BELOW CONFLUENCE WITH SNARING RIVER, LAT. 53D 2M 30S LONG. 118D 9M 13S JASPER NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08521P OIL AND GREASE MG/L	10701P SURFACT. N-ALKYL SULPHNTS. LAS MG/L	18130L ALDRIN UG/L	17811L HEXACHLORO-BENZENE UG/L	18075L ALPHA-BHC UG/L	18070L GAMMA-BHC (LINDANE) UG/L	18010L P,P-TDE UG/L	18020L P,P-DDE UG/L
80-01-07	1730	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
80-02-04	1615	417	--	--	L.001 30R	L.001 11R	L.001 75R	L.001 70R	L.002 10R	L.001 20R
80-03-04	1315	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
80-04-21	1855	417	--	--	L.001	L.001	.002	L.001	L.002	L.001
80-05-12	1530	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
80-06-16	1445	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
80-07-28	1830	417	--	--	L.001	L.001	.010	L.001	L.002	L.001
80-08-18	1710	417	--	--	L.001	L.001	.007	L.001	L.002	L.001
80-09-15	1535	417	--	--	L.001	L.001	.010	L.001	L.002	L.001
80-10-06	1600	417	--	--	L.001	L.001	.002	L.001	L.002	L.001
80-11-10	1845	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-01-12	1840	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-02-09	1635	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-03-23	1410	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001
81-04-21	1410	417	--	--	L.001 30R	L.001 11R	.001 75R	L.001 70R	L.002 10R	L.001 20R
81-05-11	1400	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-06-15	1435	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-07-06	1345	417	--	--	L.001	L.001	.003	L.001	L.002	L.001
81-08-11	0725	417	--	--	L.001	L.001	.005	L.001	L.002	L.001
81-09-14	1500	417	--	--	L.001	L.001	.003	L.001	L.002	L.001
81-10-06	1430	417	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-11-02	1400	417	--	--	L.001	L.001	.003	L.001	L.002	L.001
81-12-07	1530	417	--	--	L.001	L.001	L.001	L.001	L.002	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18005L O,P-DDT UG/L	18000L P,P-DDT UG/L	18030L P,P-METHOXY-CHLOR UG/L	18140L ENDRIN UG/L	18050L ALPHA-ENDOSULFAN UG/L	18055L BETA-ENDOSULFAN UG/L	18040L HEPTACHLOR UG/L	18045L HEPTACHLOR EPOXIDE UG/L
80-01-07	1730	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-02-04	1615	417	L.001 05R	L.004 00R	L.01 30R	L.002 40R	L.001 50R	L.003 55R	L.001 40R	L.002 45R
80-03-04	1315	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-04-21	1855	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-05-12	1530	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-06-16	1445	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-07-28	1630	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-08-18	1710	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-09-15	1535	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-10-06	1600	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-11-10	1845	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-01-12	1840	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-02-09	1635	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-03-23	1410	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-04-21	1410	417	L.001 05R	L.004 00R	L.01 30R	L.002 40R	L.001 50R	L.003 55R	L.001 40R	L.002 45R
81-05-11	1400	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-06-15	1435	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-07-06	1345	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-08-11	0725	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-08-14	1500	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-10-06	1430	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-11-02	1400	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-12-07	1530	417	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL07AA0023
ATHABASCA RIVER AT HWY 16 BRIDGE BELOW CONFLUENCE WITH SNARING RIVER, JASPER NATIONAL PARK, ALBERTA LAT. 53D 2M 30S LONG. 118D 5M 13S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18150L MEOB (DIELDRIN) UG/L	18125L MIREX UG/L	18060L ALPHA-(CIS) CHLORDANE UG/L	18085L GAMMA-(TRANS) CHLORDANE UG/L	18520P MCPA UG/L	18500P 2,4-D UG/L	18550P 2,4-DB UG/L	18555P DICHLORPROP UG/L
80-01-07	1730	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-02-04	1815	417	L 0.002 50R	L 0.001 25R	L 0.003 60R	L 0.002 65R	L 2 20W	L 0.004 00W	L 0.009 50W	L 0.004 55W
80-03-04	1315	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-04-21	1855	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-05-12	1530	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-06-16	1445	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-07-28	1830	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-08-18	1710	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-09-15	1535	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-10-06	1800	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-11-10	1645	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
80-12-01	1715	417	--	--	--	--	L 2	L 0.004	L 0.009	L 0.004
81-01-12	1640	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-02-08	1635	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-03-23	1410	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-04-21	1410	417	L 0.002 50R	L 0.001 25R	L 0.003 60R	L 0.002 65R	L 2 20W	L 0.004 00W	L 0.009 50W	L 0.004 55W
81-05-11	1400	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-06-15	1435	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-07-06	1345	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-08-11	0725	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-08-14	1500	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-10-06	1430	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-11-02	1400	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004
81-12-07	1530	417	L 0.002	L 0.001	L 0.003	L 0.002	L 2	L 0.004	L 0.009	L 0.004

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18510P 2,4,5-T UG/L	18540P FENOPROP (SILVEX) UG/L	18501P PICLORAM UG/L	18159L AROCLOR 1242 (PCB'S) UG/L	18160L AROCLOR 1254 (PCB'S) UG/L	18161L AROCLOR 1248 (PCB'S) UG/L	18162L AROCLOR 1260 (PCB'S) UG/L	18164L AROCHLOR TOTAL (PCB'S) UG/L
80-01-07	1730	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.020
80-02-04	1815	417	L 0.002 10W	L 0.004 40W	L 2 01W	--	L 0.002 60R	L 0.002 61R	L 0.005 62R	L 0.020 64R
80-03-04	1315	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.020
80-04-21	1855	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.020
80-05-12	1530	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.020
80-06-16	1445	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.020
80-07-28	1830	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.020
80-08-18	1710	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.020
80-09-15	1535	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	--
80-10-06	1800	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	--
80-11-10	1645	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	--
80-12-01	1715	417	L 0.002	L 0.004	L 2	--	--	--	--	--
81-01-12	1640	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	L 0.002
81-02-08	1635	417	L 0.002	L 0.004	L 2	--	L 0.002	L 0.002	L 0.005	--
81-03-23	1410	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002
81-04-21	1410	417	L 0.002 10W	L 0.004 40W	L 2 01W	L 0.002 59R	L 0.002 60R	--	L 0.005 62R	L 0.002 64R
81-05-11	1400	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002
81-06-15	1435	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002
81-07-06	1345	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002
81-08-11	0725	417	L 0.002	L 0.004	--	L 0.002	L 0.002	--	L 0.005	L 0.002
81-08-14	1500	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002
81-10-06	1430	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002
81-11-02	1400	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002
81-12-07	1530	417	L 0.002	L 0.004	L 2	L 0.002	L 0.002	--	L 0.005	L 0.002

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

IV

RESULTS FROM

WATERTON NATIONAL PARK

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALOSABOOOS LAT. 49D 8M 50S LONG. 113D 50M 20S
WATERTON RIVER AT HWY 6 BRIDGE NEAR WATERTON LAKES NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02061F TEMP. WATER DEG. C.	02061L TEMP. WATER DEG. C.	02041F SPECIFIC CONDUCT. USIE/CM	02041L SPECIFIC CONDUCT. USIE/CM	10301F PH PH UNITS	10301L PH PH UNITS	02073F TURBIDITY JTU	02073L TURBIDITY JTU
80-01-23	1345	3	1.5	13.4	--	198.	7.6	8.0	.8	1.0
80-02-20	1740	3	.5	22.5	--	381.	7.9	7.9	.4	1.5
80-03-20	1630	3	2.0	20.7	180.	195.	8.1	8.0	.7	.9
80-04-17	0815	3	5.5	22.1	185.	190.	8.4	8.2	2.0	2.0
80-05-15	0745	3	6.5	18.3	140.	157.	8.4	8.1	1.0	.8
80-06-12	0730	3	9.0	19.6	--	225.	--	8.1	8.4	4.5
80-07-16	1600	3	14.0	18.1	--	218.	8.4	8.2	1.5	2.5
80-08-07	1500	3	16.0	19.6	145.	161.	8.6	8.5	1.0	.6
80-09-17	1445	3	10.0	21.5	180.	184.	8.3	8.2	1.8	1.3
80-10-22	1600	3	4.0	21.1	185.	190.	8.2	8.2	1.0	2.4
80-11-26	1630	3	1.0	20.3	156.	188.	8.2	7.9	3.0	2.8
80-12-10	1615	3	.5	21.2	147.	185.	8.0	8.2	1.0	1.4
81-01-21	1600	3	2.0	22.0	145.	186.	8.2	8.2	1.0	1.5
81-02-18	1630	3	1.5	21.1	179.	219.	8.2	8.1	1.6	1.5
81-03-11	1430	3	3.0	17.1	175.	209.	8.3	8.2	2.0	1.8
81-04-09	1100	3	3.0	17.7	188.	197.	8.2	8.1	3.0	2.0
81-06-14	0850	3	7.0	20.9	152.	173.	8.0	8.0	2.0	1.5
81-06-03	1515	3	8.0	15.8	--	175.	8.1	8.1	7.0	3.2
81-07-03	1130	3	10.0	21.8	--	160.	8.0	8.2	3.0	1.5
81-08-19	1400	3	18.0	18.8	--	179.	8.3	8.2	1.0	.8
81-09-24	0830	3	8.0	22.4	255.	187.	8.2	8.2	--	1.3
81-10-21	1400	3	4.0	15.9	186.	187.	7.7	8.1	--	1.3
81-11-18	1545	3	1.0	22.8	200.	190.	8.4	8.1	--	2.3
81-12-17	1340	3	.5	19.8	191.	183.	8.3	8.0	--	.9

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02021L COLOUR TRUE REL. UNITS	10401L RESIDUE NONFILTR. MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	08717G CHLORO-PHYLL A MG/L	36002F COLIFORMS TOTAL MF NO/DL	36012F COLIFORMS FECAL MF NO/DL	36103F FECAL STREP. MF NO/DL
80-01-23	1345	3	5.	--	1. 01R	--	--	2. 02U	L2. 12U	--
80-02-20	1740	3	10.	--	2.	--	--	2.	L2.	--
80-03-20	1630	3	10.	--	4.	--	--	L2.	L2.	--
80-04-17	0815	3	5.	--	3.	--	.001	L2.	L2.	--
80-05-15	0745	3	5.	--	1.	--	.002	--	L2.	--
80-06-12	0730	3	5.	--	9.	--	001	--	8.	--
80-07-16	1600	3	10.	--	7.	--	.001	10.	L2.	--
80-08-07	1500	3	10.	--	2.	--	.001	--	5.	--
80-09-17	1445	3	10.	--	4.	--	.004	--	5.	--
80-10-22	1600	3	10.	--	3.	--	.001	L2	L2.	--
80-11-26	1630	3	20.	--	3.	--	.003	L2.	L2.	--
80-12-10	1615	3	20.	--	1.	--	L.001	--	--	--
81-01-21	1600	3	5.	--	1.	--	L.001	L2.	L2.	--
81-02-18	1630	3	L5.	--	L1.	--	L.001	2.	L2.	--
81-03-11	1430	3	5.	--	4.	--	.002	L2.	L2.	--
81-04-09	1100	3	--	20.	3.	--	.002	L2	L2.	--
81-06-14	0850	3	--	5.	5.	--	L.001	L2	L2.	--
81-06-03	1515	3	--	5.	5.	--	.001	L2.	L2.	--
81-07-03	1130	3	--	5.	3.	--	.001	L2.	L2.	--
81-08-19	1400	3	--	5.	L1.	--	.001	2	L2.	--
81-09-24	0830	3	--	10.	L1.	--	.001	--	12.	--
81-10-21	1400	3	--	5.	1.	--	.001	L2.	L2.	--
81-11-18	1545	3	--	10.	1.	--	.008	L2.	L2	--
81-12-17	1340	3	--	10.	1.	--	.003	L1.	L1.	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALCSAB0005
WATERTON RIVER AT HWY 6 BRIDGE NEAR WATERTON LAKES NATIONAL PARK, ALBERTA LAT. 49D 8M 50S LONG. 113D 9CM 20S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08101W OXYGEN DISSOLVED DO O2 MG/L	06301L CARBONATE (CALCD.) CO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	06201L BICARBONT. (CALCD.) HCO3 MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	20103L CALCIUM DISSOLVED CA MG/L	12102L MAGNESIUM DISSOLVED MG MG/L	10802L HARDNESS TOTAL (CALCD.) CACO3 MG/L
80-01-23	1345	3	13.0	--	0.0	--	--	25.00	6.8	98.7
80-02-20	1740	3	11.8	0.	0.0	71.	58.0 06L	24.60	9.1	98.9
80-03-20	1830	3	13.1	0.	0.0	77.	63.0 06L	21.00	7.8	84.8
80-04-17	0815	3	10.2	0.	0.0	104.	85.0	23.00	7.1	86.7
80-05-15	0745	3	10.8	0.	0.0	94.	77.0	21.70	7.2	83.8
80-06-12	0730	3	9.3	0.	0.0	89.	73.0	29.90	7.1	103.9
80-07-16	1600	3	9.9	0.	0.0	94.	77.0	29.30	7.3	103.2
80-08-07	1500	3	9.5	6.	5.3	82.	78.0	21.30	8.4	87.3
80-09-17	1445	3	9.2	0.	0.0	100.	82.0	22.50	8.5	91.2
80-10-22	1600	3	10.3	0.	0.0	104.	85.0	23.40	7.8	89.7
80-11-26	1630	3	12.2	0.	0.0	102.	84.0	24.30	8.7	98.5
80-12-10	1615	3	10.5	0.	0.0	101.	83.0	22.60	7.9	89.0
81-01-21	1600	3	11.6	0.	0.0	100.	82.0	22.20	7.6	85.7
81-02-18	1630	3	11.4	0.	0.0	117.	96.0	26.40	10.5	109.2
81-03-11	1430	3	11.4	0.	0.0	122.	100.0	25.00	8.6	97.8
81-04-08	1100	3	12.6	0.	0.0	106.	87.0	25.50	9.5	102.8
81-05-14	0850	3	10.8	0.	0.0	95.	78.0	21.70	7.5	85.1
81-06-03	1515	3	10.2	0.	0.0	106.	87.0	24.50	8.2	94.9
81-07-03	1130	3	9.8	0.	0.0	90.	74.0	20.80	4.2	69.2
81-08-19	1400	3	9.1	0.	0.0	102.	84.0	22.00	8.8	91.2
81-09-24	0830	3	9.4	0.	0.0	105.	86.0	23.50	8.4	93.3
81-10-21	1400	3	11.0	0	0.0	106.	87.0	24.80	9.0	99.0
81-11-18	1545	3	11.2	0	0.0	112.	92.0	25.80	9.2	102.3
81-12-17	1340	3	13.0	0.	0.0	111.	91.0	25.20	8.3	97.1

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	00201L TOTAL DISSOLVED SOLIDS (CALCD.) MG/L	11103L SODIUM DISSOLVED NA MG/L	19103L POTASSIUM DISSOLVED K MG/L	17205L CHLORIDE DISSOLVED CL MG/L	09105L FLUORIDE DISSOLVED F MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	14105L SILICA REACTIVE SIO2 MG/L	15104P SULFIDE DISSOLVED S MG/L
80-01-23	1345	3	--	1.0	.2	.3	L.05	5.	1.7	--
80-02-20	1740	3	77.	.8	.2	.5	L.05	5.	1.9	--
80-03-20	1830	3	74	.8	.3	.3	L.05	4.	2.0	--
80-04-17	0815	3	89.	.8	.3	.4	.04	4.	2.3	--
80-05-15	0745	3	84.	.7	.2	.3	L.05	5.	3.1	--
80-06-12	0730	3	111	.6	.2	.3	L.05	28.	3.2	--
80-07-16	1600	3	109	.8	.2	.2	L.05	22.	2.8	--
80-08-07	1500	3	85.	.9	.2	.4	L.05	4	2.7	--
80-09-17	1445	3	89.	1.0	.2	.3	L.05	5.	2.3	--
80-10-22	1600	3	90.	.8	.3	.3	.07	5.	1.5	--
80-11-26	1630	3	91	.9	.3	.4	L.05	4.	1.8	--
81-01-21	1600	3	88.	.9	.2	.3	.05	4.	2.0	--
81-02-18	1630	3	88.	.8	.3	.3	.05	5.	2.7	--
81-03-11	1430	3	105.	1.3	.3	.3	.07	5.	3.3	--
81-04-08	1100	3	104.	1.3	.4	.4	.08	5.	3.0	--
81-05-14	0850	3	97	.7	.4	.3	L.05	5.	3.0	--
81-06-03	1515	3	85.	.8	.2	.2	L.05	5	3.0	--
81-07-03	1130	3	95.	1.2	.2	.3	L.05	4	3.9	--
81-08-19	1400	3	78.	.6	.2	.3	L.05	4.	3.2	--
81-09-24	0830	3	90.	.8	.2	.3	L.05	4.	3.0	--
81-10-21	1400	3	91	1.0	.2	.2	L.05	4.	2.4	--
81-11-18	1545	3	93.	.7	.2	.2	L.05	4.	1.4	--
81-12-17	1340	3	98.	.9	.4	.3	L.05	5.	1.6	--
			96.	.8	.2	.3	L.05	5.	1.6	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05AB0005 LAT. 49D 0M 50S LONG. 113D 50M 20S
WATERTON RIVER AT HWY 6 BRIDGE NEAR WATERTON LAKES NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15406L PHOSPHORUS TOTAL P MG/L	15103D PHOSPHORUS TOTAL DISSOLVED P MG/L	15901L PHOSPHORUS PARTICULATE (CALCD.) P MG/L	07110D NITROGEN DISSOLVED NO3 & NO2 N MG/L	07651D NITROGEN DISSOLVED N MG/L	07651L NITROGEN DISSOLVED N MG/L	07902L NITROGEN PARTICUL. N MG/L	07603L NITROGEN TOTAL (CALCD.) N MG/L
80-01-23	1345	3	.003 06R	L.003 03R	Q0.000	.07 10R	--	.10 51R	.05 02R	.15
80-02-20	1740	3	L.003	L.003 03L	Q0.000	.07 10L	--	.12	.04	.16
80-03-20	1630	3	.003	.003 03L	0.000	.06 10L	--	.10	.04	.14
80-04-17	0815	3	.007	L.003	Q.004	.05	.09	.10	.13	.23
80-05-15	0745	3	.004	L.003	Q.001	.12	.13	.19	.05	.24
80-06-12	0730	3	.006	L.003	Q.003	.12	.16	.15	.05	.21
80-07-16	1800	3	L.003	L.003	Q0.000	.12	.14	.14	L.01	Q.15
80-08-07	1500	3	.027	.003	.024	.06	.10	.12	.07	.19
80-09-17	1445	3	L.003	L.003	Q0.000	.04	.09	.09	.06	.15
80-10-22	1800	3	L.003	L.003	Q0.000	.03	.07	.07	.04	.11
80-11-26	1630	3	.088	L.003	Q.085	.06	.10	.14	.06	.20
80-12-10	1615	3	.003	L.003	Q0.000	.07	.10	.12	L.01	Q.13
81-01-21	1600	3	L.003	L.003	Q0.000	.11	.12	.12	L.01	Q.13
81-02-18	1630	3	L.003	L.003	Q0.000	.09	.14	.14	.07	.21
81-03-11	1430	3	L.003	L.003	Q0.000	.12	.16	.21	.06	.27
81-04-09	1100	3	L.003	L.003	Q0.000	.09	.13	.15	.07	.22
81-05-14	0850	3	L.003	L.003	Q0.000	.12	.15	.15	.03	.18
81-06-03	1515	3	.009	L.003	Q.006	.13	.18	.18	L.01	Q.19
81-07-03	1130	3	.010	.007	.003	.13	.15	.15	.03	.18
81-08-19	1400	3	L.003	L.003	Q0.000	.07	.11	.12	L.01	Q.13
81-09-24	0830	3	L.003	L.003	Q0.000	.03	.11	.09	L.01	Q.10
81-10-21	1400	3	L.003	L.003	Q0.000	.03	.07	.06	.05	.11
81-11-18	1545	3	.017	.005	.012	.03	.06	--	L.01	--
81-12-17	1340	3	L.003	L.003	Q0.000	.03	.05	.05	L.01	Q.06

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07508P NITROGEN TOTAL AMMONIA N MG/L	15256D PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L	06152L CARBON DISSOLVED INORGANIC C MG/L	06104L CARBON DISSOLVED ORGANIC C MG/L	06902L CARBON ORGANIC PARTICUL. C MG/L	06002L CARBON TOTAL ORGANIC (CALCD.) MG/L	03301P LITHIUM EXTRBLE LI MG/L	13302P ALUMINUM EXTRBLE AL MG/L
80-01-23	1345	3	--	--	19.0 52R	1.0 04R	.15 02R	1.2	--	--
80-02-20	1740	3	--	--	17.0	1.0	.20	1.2	--	--
80-03-20	1630	3	--	--	14.0	L1.0	.22	Q1.2	--	--
80-04-17	0915	3	--	--	--	1.0	--	--	--	--
	0915	3	--	--	--	1.0 04D	--	--	--	--
80-05-15	0745	3	--	--	--	L1.0 04D	--	--	--	--
80-06-12	0730	3	--	--	--	1.0 04D	.30	1.3	--	--
80-07-16	1500	3	--	--	--	L1.0 04D	.23	Q1.2	--	--
80-08-07	1500	3	--	--	--	L1.0 04D	.24	Q1.2	--	--
80-09-17	1445	3	--	--	--	L1.0 04D	.25	Q1.3	--	--
80-10-22	1800	3	--	--	--	1.0 04D	.28	1.3	--	--
80-11-26	1630	3	--	--	--	L1.0 04D	.28	Q1.3	--	--
80-12-10	1515	3	--	--	--	L1.0 04D	.13	Q1.1	--	--
81-01-21	1600	3	--	--	--	L1.0 04D	.12	Q1.1	--	--
81-02-18	1630	3	--	--	--	1.0 04D	.20	1.2	--	--
81-03-11	1430	3	--	--	--	L1.0 04D	.30	Q1.3	--	--
81-04-09	1100	3	L.1	--	--	--	29	--	--	--
81-05-14	0850	3	L.1	--	--	1.0	21	1.2	--	--
81-06-03	1515	3	L.1	--	--	1.8	.25	2.1	--	--
81-07-03	1130	3	L.1	--	--	.9	.30	1.2	--	--
81-08-19	1400	3	L.1	--	--	.9	.20	1.1	--	--
81-09-24	0830	3	L.1	--	--	.6	.23	.8	--	--
81-10-21	1400	3	L.1	--	--	1.0	25	1.3	--	--
81-11-18	1545	3	L.1	--	--	1.5	25	1.8	--	--
81-12-17	1340	3	L.1	--	--	1.0	.13	1.1	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALOBA0005
WATERTON RIVER AT HWY 6 BRIDGE NEAR WATERTON LAKES NATIONAL PARK, ALBERTA LAT. 49D 0M 50S LONG. 113D 50M 20S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	05105L BORON DISSOLVED B MG/L	33104D ARSENIC DISSOLVED AS MG/L	34102D SELENIUM DISSOLVED SE MG/L	25304P MANGANESE EXTRBLE. MN MG/L	25104G MANGANESE DISSOLVED MN MG/L	26304P IRON EXTRBLE. FE MG/L	26104G IRON DISSOLVED FE MG/L	80011P MERCURY TOTAL HG UG/L
80-01-23	1345	3	L.02	L.0005 04L	L.0005 02L	.01 04M	--	L.04 04M	--	L.02 11M
80-02-20	1740	3	L.02	L.0005 04L	L.0005 02L	.01	--	L.04	--	L.02
80-03-20	1830	3	L.02	L.0005 04L	L.0005 02L	L.01	--	L.04	--	L.02
80-04-17	0815	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-05-15	0745	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-06-12	0730	3	.03	L.0005	L.0005	--	L.01	--	L.04	.03
80-07-16	1600	3	.03	L.0005	L.0005	--	L.01	--	L.04	.06
80-08-07	1500	3	L.02	.0005	L.0005	--	L.01	--	L.04	L.02
80-09-17	1445	3	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-10-22	1600	3	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-11-26	1630	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-12-10	1615	3	.03	.0005	L.0005	--	L.01	--	L.04	L.02
81-01-21	1600	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-02-18	1630	3	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
81-03-11	1430	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-04-09	1100	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-05-14	0850	3	.03	L.0005	.0017	--	L.01	--	L.04	L.02
81-06-03	1515	3	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
81-07-03	1130	3	.03	L.0005	L.0005	--	.02	--	L.04	L.02
81-08-19	1400	3	.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-09-24	0830	3	.02 05D	.0005	L.0005	--	L.01	--	L.04	L.02
81-10-21	1400	3	.04 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-11-18	1545	3	.02 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-12-17	1340	3	.02 05D	L.0005	L.0005	--	L.01	--	L.04	.10

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	23302P VANADIUM EXTRBLE. V MG/L	23020P VANADIUM TOTAL RECOVERABLE VA MG/L	24302P CHROMIUM EXTRBLE. CR MG/L	27302P COBALT EXTRBLE. CO MG/L	27020P COBALT TOTAL RECOVERABLE CO MG/L	28302P NICKEL EXTRBLE. NI MG/L	28020P NICKEL TOTAL RECOVERABLE NI MG/L	47301P SILVER EXTRBLE. AG MG/L
80-01-23	1345	3	L.001 02M	--	--	L.002 02M	--	--	--	--
80-02-20	1740	3	L.001	--	--	L.002	--	--	--	--
80-03-20	1830	3	L.001	--	--	L.002	--	--	--	--
80-04-17	0815	3	--	L.001	--	--	006	--	017	--
80-05-15	0745	3	--	.001	--	--	.002	--	004	--
80-06-12	0730	3	--	L.001	--	--	002	--	003	--
80-07-16	1600	3	--	L.001	--	--	L.002	--	L.002	--
80-08-07	1500	3	--	L.001	--	--	L.002	--	L.002	--
80-09-17	1445	3	--	L.001	--	--	L.002	--	003	--
80-10-22	1600	3	--	L.001	--	--	L.002	--	L.002	--
80-11-26	1630	3	--	L.001	--	--	L.002	--	L.002	--
80-12-10	1615	3	--	L.001	--	--	L.002	--	L.002	--
81-01-21	1600	3	--	L.001	--	--	L.002	--	.006	--
81-02-18	1630	3	--	L.001	--	--	009	--	012	--
81-03-11	1430	3	--	L.001	--	--	L.002	--	L.002	--
81-04-09	1100	3	--	L.001	--	--	L.002	--	--	--
81-05-14	0850	3	--	L.001	--	--	002	--	--	--
81-06-03	1515	3	--	.001	--	--	.002	--	--	--
81-07-03	1130	3	--	L.001	--	--	L.002	--	.003	--
81-08-19	1400	3	--	L.001	--	--	L.002	--	L.002	--
81-09-24	0830	3	--	L.001	--	--	L.002	--	L.002	--
81-10-21	1400	3	--	L.001	--	--	L.002	--	L.002	--
81-11-18	1545	3	--	L.001	--	--	L.002	--	L.002	--
81-12-17	1340	3	--	L.001	--	--	L.002	--	.013	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL08AB0005
WATERTON RIVER AT HWY 6 BRIDGE NEAR WATERTON LAKES NATIONAL PARK, ALBERTA
LAT. 490 8M 60S LONG. 1130 50M 20S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE. CU MG/L	29020P COPPER TOTAL RECOVERABLE CU MG/L	30305P ZINC EXTRBLE. ZN MG/L	30020P ZINC TOTAL RECOVERABLE ZN MG/L	38301P STRONTIUM EXTRBLE. SR MG/L	42301P MOLYBDENUM EXTRBLE. MO MG/L	48302P CADMIUM EXTRBLE. CD MG/L	48020P CADMIUM TOTAL RECOVERABLE CD MG/L
80-01-23	1345	3	L.001 05W	--	L.001 05W	--	--	--	L.001 02W	--
80-02-20	1740	3	L.001	--	L.001	--	--	--	L.001	--
80-03-20	1630	3	.003	--	L.001	--	--	--	L.001	--
80-04-17	0915	3	--	.004	--	.004	--	--	--	002
80-06-15	0745	3	--	.001	--	.013	--	--	--	L.001
80-06-12	0730	3	--	.001	--	.005	--	--	--	L.001
80-07-16	1600	3	--	.001	--	.005	--	--	--	L.001
80-08-07	1500	3	--	L.001	--	.002	--	--	--	L.001
80-09-17	1445	3	--	L.001	--	.006	--	--	--	L.001
80-10-22	1600	3	--	L.001	--	L.001	--	--	--	001
80-11-26	1630	3	--	.003	--	.003	--	--	--	L.001
80-12-10	1615	3	--	.005	--	.003	--	--	--	L.001
81-01-21	1600	3	--	L.001	--	L.001	--	--	--	L.001
81-02-18	1630	3	--	.002	--	.001	--	--	--	001
81-03-11	1430	3	--	L.001	--	.002	--	--	--	L.001
81-04-08	1100	3	--	L.001	--	--	--	--	--	L.001
81-05-14	0850	3	--	002	--	--	--	--	--	L.001
81-06-03	1515	3	--	L.001	--	L.001	--	--	--	L.001
81-07-03	1130	3	--	L.001	--	010	--	--	--	L.001
81-08-19	1400	3	--	005	--	L.001	--	--	--	L.001
81-09-24	0830	3	--	L.001	--	001	--	--	--	L.001
81-10-21	1400	3	--	002	--	009	--	--	--	L.001
81-11-18	1545	3	--	L.001	--	001	--	--	--	L.001
81-12-17	1340	3	--	L.001	--	.002	--	--	--	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	56301P BARIUM EXTRBLE. BA MG/L	56020P BARIUM TOTAL RECOVERABLE BA MG/L	82302P LEAD EXTRBLE. PB MG/L	82020P LEAD TOTAL RECOVERABLE PB MG/L	08604P CYANIDE DISSOLVED CN MG/L	06535P PHENOLIC MATERIAL PHENOL MG/L	06500P N-ALKANES C10 - C28 UG/L	06510P AROMATIC HYDROC UG/L
80-01-23	1345	3	08 01W	--	L.004 02W	--	.002 04W	L.001 35W	--	--
80-02-20	1740	3	.15	--	L.004	--	001	L.001	--	--
80-03-20	1630	3	.10	--	L.004	--	001	L.001	--	--
80-04-17	0915	3	--	10	--	.006	L.001	L.001	--	--
80-06-15	0745	3	--	08	--	L.004	L.001	L.001	--	--
80-06-12	0730	3	--	09	--	L.004	001	L.001	--	--
80-07-16	1600	3	--	08	--	L.004	001	L.001	--	--
80-08-07	1500	3	--	L.05	--	L.004	--	001	--	--
80-09-17	1445	3	--	.07	--	L.004	001	002	--	--
80-10-22	1600	3	--	.12	--	L.004	001	002	--	--
80-11-26	1630	3	--	.11	--	005	002	002	--	--
80-12-10	1615	3	--	.13	--	L.004	003	L.001	--	--
81-01-21	1600	3	--	05	--	L.004	002	L.001	--	--
81-02-18	1630	3	--	.11	--	L.004	002	L.001	--	--
81-03-11	1430	3	--	L.05	--	L.004	002	L.001	--	--
81-04-08	1100	3	--	.14	--	L.004	--	L.001	--	--
81-05-14	0850	3	--	L.05	--	L.004	001	L.001	--	--
81-06-03	1515	3	--	L.05	--	.034	002	L.001	--	--
81-07-03	1130	3	--	06	--	.004	002	L.001	--	--
81-08-19	1400	3	--	09	--	L.004	003	L.001	--	--
81-09-24	0830	3	--	10	--	L.004	002	005	--	--
81-10-21	1400	3	--	09	--	L.004	001	L.001	--	--
81-11-18	1545	3	--	13	--	L.004	L.001	L.001	--	--
81-12-17	1340	3	--	09	--	L.004	001	L.001	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALQSA00005
WATERTON RIVER AT HWY 5 BRIDGE NEAR WATERTON LAKES NATIONAL PARK, ALBERTA LAT. 480 8M 50S LONG. 1130 50M 20S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06521P OIL AND GREASE MG/L	10701P SURFACT. N-ALKYL SULPHNTS. LAS MG/L	18130L ALDRIN UG/L	17811L HEXACHLORO-BENZENE UG/L	18075L ALPHA-BHC UG/L	18070L GAMMA-BHC (LINDANE) UG/L	18010L P,P-TDE UG/L	18020L P,P-DDE UG/L
80-01-23	1345	3	--	--	L.001 30R	L.001 11R	.005 75R	L.001 70R	L.002 10R	L.001 20R
80-02-20	1740	3	--	--	L.001	L.001	.006	L.001	L.002	L.001
80-03-20	1630	3	--	--	L.001	L.001	.001	L.001	L.002	L.001
80-04-17	0815	3	--	--	L.001	L.001	.004	L.001	L.002	L.001
80-05-15	0745	3	--	--	L.001	L.001	.003	L.001	L.002	L.001
80-06-12	0730	3	--	--	L.001	L.001	.004	L.001	L.002	L.001
80-07-16	1600	3	--	--	L.001	L.001	.008	L.001	L.002	L.001
80-08-17	1445	3	--	--	L.001	L.001	.009	L.001	L.002	L.001
80-10-22	1600	3	--	--	L.001	L.001	L.001	L.001	L.002	L.001
80-11-28	1630	3	--	--	L.001	L.001	.004	L.001	L.002	L.001
80-12-10	1615	3	--	--	L.001	L.001	.006	L.001	L.002	L.001
81-01-21	1500	3	--	--	L.001	L.001	.008	L.001	L.002	L.001
81-02-18	1630	3	--	--	L.001	L.001	.004	L.001	L.002	L.001
81-03-11	1430	3	--	--	L.001	L.001	.002	L.001	L.002	L.001
81-04-08	1100	3	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-05-14	0850	3	--	--	L.001	L.001	.002	.002	L.002	L.001
81-06-03	1515	3	--	--	L.001	L.001	.001	L.001	L.002	L.001
81-07-03	1130	3	--	--	L.001	L.001	.004	L.001	L.002	L.001
81-08-19	1400	3	--	--	L.001	L.001	.008	L.001	L.002	L.001
81-09-24	0830	3	--	--	L.001	L.001	.010	L.001	L.002	L.001
81-10-21	1400	3	--	--	L.001	L.001	.008	L.001	L.002	L.001
81-11-18	1545	3	--	--	L.001	L.001	.009	L.001	L.002	L.001
81-12-17	1340	3	--	--	L.001	L.001	.009	L.001	L.002	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18005L O,P-DDT UG/L	18000L P,P-DDT UG/L	18030L P,P-METHOXY-CHLOR UG/L	18140L ENDRIN UG/L	18050L ALPHA-ENDOSULFAN UG/L	18055L BETA-ENDOSULFAN UG/L	18040L HEPTACHLOR UG/L	18045L HEPTACHLOR EPOXIDE UG/L
80-01-23	1345	3	L.001 05R	L.004 00R	L.01 30R	L.002 40R	L.001 50R	L.003 55R	L.001 40R	L.002 45R
80-02-20	1740	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-03-20	1630	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-04-17	0815	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-05-15	0745	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-06-12	0730	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-07-16	1600	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-08-17	1445	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-10-22	1600	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-11-28	1630	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
80-12-10	1615	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-01-21	1500	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-02-18	1630	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-03-11	1430	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-04-08	1100	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-05-14	0850	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-06-03	1515	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-07-03	1130	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-08-19	1400	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-09-24	0830	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-10-21	1400	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-11-18	1545	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002
81-12-17	1340	3	L.001	L.004	L.01	L.002	L.001	L.003	L.001	L.002

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALQ5AB0005
WATERTON RIVER AT HWY 6 BRIDGE NEAR WATERTON LAKES NATIONAL PARK, ALBERTA LAT. 49D 08M 50S LONG. 113D 50M 20S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18150L MEOD (DIELDRIN) UG/L	18125L MIREX UG/L	18060L ALPHA- (CIS) CHLORDANE UG/L	18065L GAMMA- (TRANS) CHLORDANE UG/L	18520P MCPA UG/L	18500P 2,4-D UG/L	18550P 2,4-DB UG/L	18555P DICHLORPROP UG/L
80-01-23	1345	3	L.002 50R	L.001 25R	L.003 60R	L.002 65R	L.2 20W	L.004 00W	L.009 50W	L.004 55W
80-02-20	1740	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-03-20	1830	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-04-17	0815	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-05-15	0745	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-06-12	0730	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-07-16	1600	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-08-07	1500	3	--	--	--	--	L.2	L.004	L.009	L.004
80-09-17	1445	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-10-22	1600	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-11-26	1630	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
80-12-10	1515	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-01-21	1600	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-02-18	1630	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-03-11	1430	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-04-08	1100	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-05-14	0850	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-06-03	1515	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-07-03	1130	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-08-18	1400	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-09-24	0830	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-10-21	1400	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-11-18	1545	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004
81-12-17	1340	3	L.002	L.001	L.003	L.002	L.2	L.004	L.009	L.004

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	18510P 2,4,5-T UG/L	18540P FENOPROP (SILVEX) UG/L	18601P PICLORAM UG/L	18159L AROCLOR 1242 (PCB'S) UG/L	18160L AROCLOR 1254 (PCB'S) UG/L	18161L AROCLOR 1248 (PCB'S) UG/L	18162L AROCLOR 1260 (PCB'S) UG/L	18164L AROCHLOR TOTAL (PCB'S) UG/L
80-01-23	1345	3	L.002 10W	L.004 40W	L.2 01W	--	L.002 60R	L.002 61R	L.005 62R	L.020 64R
80-02-20	1740	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.020
80-03-20	1830	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.020
80-04-17	0815	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.020
80-05-15	0745	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.020
80-06-12	0730	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.020
80-07-16	1600	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.020
80-08-07	1500	3	L.002	L.004	L.2	--	--	--	--	--
80-09-17	1445	3	L.002	L.004	L.2	--	L.002	L.002	L.005	--
80-10-22	1600	3	L.002	L.004	L.2	--	L.002	L.002	L.005	--
80-11-26	1630	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.002
80-12-10	1515	3	L.002	L.004	L.2	--	L.002	L.002	L.005	L.002
81-01-21	1600	3	L.002	L.004	L.2	--	L.002	L.002	L.005	--
81-02-18	1630	3	L.002	L.004	L.2	--	L.002	L.002	L.005	--
81-03-11	1430	3	L.002	L.004	L.2	--	L.002	L.002	L.005	--
81-04-08	1100	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002
81-05-14	0850	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002
81-06-03	1515	3	.005	L.004	L.2	L.002	L.002	--	L.005	L.002
81-07-03	1130	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002
81-08-19	1400	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002
81-09-24	0830	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002
81-10-21	1400	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002
81-11-18	1545	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002
81-12-17	1340	3	L.002	L.004	L.2	L.002	L.002	--	L.005	L.002

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00ALCSABOOBO
BELLY RIVER AT HWY 6, WATERTON LAKES NATIONAL PARK, ALBERTA

LAT. 49D 3M 8S LONG. 113D 41M 7S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02061F TEMP. WATER DEG. C.	02061L TEMP. WATER DEG. C.	02041F SPECIFIC CONDUCT. USIE/CM	02041L SPECIFIC CONDUCT. USIE/CM	10301F PH PH UNITS	10301L PH PH UNITS	02073F TURBIDITY JTU	02073L TURBIDITY JTU
80-01-23	1845	3	1.0	13.2	--	244.	--	8.2	.8	.3
80-02-20	1710	3	2.0	21.8	--	253.	7.9	8.1	.4	.7
80-03-20	1545	3	1.5	22.6	210.	252.	7.9	8.0	.7	.7
80-04-17	1100	3	3.5	24.0	230.	275.	8.0	8.2	8.2	2.6
80-05-15	0830	3	4.0	18.3	150.	161.	8.1	8.0	3.2	2.1
80-06-11	1430	3	10.0	19.6	160.	160.	--	8.0	36.0	23.0
80-07-15	1445	3	11.0	18.1	170.	195.	8.2	8.1	1.5	2.0
80-08-07	1300	3	12.0	19.2	185.	198.	8.2	8.1	2.0	.9
80-09-17	1330	3	8.0	22.0	188.	191.	8.1	8.1	2.0	1.5
80-10-22	1445	3	4.0	21.1	181.	205.	8.0	8.0	.8	.7
80-11-26	1530	3	1.5	20.8	190.	223.	8.2	8.0	3.0	15.0
80-12-10	1510	3	.5	21.3	190.	235.	8.0	8.2	3.0	2.2
81-01-21	1430	3	2.0	22.1	204.	244.	8.2	8.1	1.0	2.2
81-02-18	1515	3	.5	21.1	198.	248.	8.2	8.0	1.4	1.0
81-03-11	1330	3	3.0	16.7	216.	287.	8.2	8.2	1.4	1.0
81-04-08	0955	3	1.5	18.3	224.	285.	8.2	7.9	1.4	1.4
81-05-14	0830	3	5.5	14.7	193.	217.	8.1	8.0	8.0	2.6
81-06-03	1400	3	8.0	15.6	--	188.	7.9	8.0	16.0	8.7
81-07-03	1015	3	10.0	21.1	--	162.	8.0	8.0	8.0	1.8
81-08-19	1235	3	14.0	21.0	--	167.	8.0	8.6	1.6	.6
81-09-24	0715	3	4.0	22.7	185.	209.	8.0	8.1	--	1.0
81-10-21	1240	3	3.0	15.6	230.	230.	8.1	8.1	--	.7
81-11-18	1330	3	1.0	22.9	217.	199.	8.3	8.1	--	.5
81-12-17	1245	3	0.0	19.9	224.	214.	8.3	8.0	--	1.2

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	02011L COLOUR APPARENT REL. UNITS	02021L COLOUR TRUE REL. UNITS	10401L RESIDUE NONFILTR. MG/L	10501L RESIDUE FIXED NONFILTR. MG/L	06717G CHLORO-PHYLL A MG/L	35002F COLIFORMS TOTAL MF NO/DL	35012F COLIFORMS FECAL MF NO/DL	35103F FECAL STREP. MF NO/DL
80-01-23	1845	3	5.	--	1.	--	--	L2.	L2.	--
80-02-20	1710	3	10.	--	1.	--	--	2.	L2.	--
80-03-20	1545	3	5.	--	10.	--	--	L2.	L2.	--
80-04-17	1100	3	5.	--	5.	--	L.001	L2.	L2.	--
80-05-15	0830	3	5.	--	4.	--	.001	--	L2.	--
80-06-11	1430	3	30.	--	45.	--	.005	--	26.	--
80-07-15	1445	3	5.	--	L1.	--	L.001	3.	L2.	--
80-08-07	1300	3	5.	--	3.	--	L.001	21.	12.	--
80-09-17	1330	3	10.	--	4.	--	L.001	21.	12.	--
80-10-22	1445	3	10.	--	2.	--	.001	L2.	L2.	--
80-11-26	1530	3	20.	--	2.	--	.001	L2.	L2.	--
80-12-10	1510	3	20.	--	4.	--	L.001	--	--	--
81-01-21	1430	3	5.	--	3.	--	L.001	L2.	L2.	--
81-02-18	1515	3	5.	--	1.	--	L.001	L2.	L2.	--
81-03-11	1330	3	10.	--	1.	--	L.001	L2.	L2.	--
81-04-08	0955	3	--	5.	1.	--	L.001	L2.	L2.	--
81-05-14	0830	3	--	5.	3.	--	L.001	L2.	L2.	--
81-06-03	1400	3	--	5.	18.	--	L.001	L2.	L2.	--
81-07-03	1015	3	--	5.	5.	--	.001	L2.	L2.	--
81-08-19	1235	3	--	5.	2.	--	L.001	L2.	L2.	--
81-09-24	0715	3	--	5.	2.	--	L.001	--	5.	--
81-10-21	1240	3	--	5.	1.	--	L.001	L2.	L2.	--
81-11-18	1330	3	--	10.	L1.	--	L.001	--	2.	--
81-12-17	1245	3	--	10.	2.	--	L.001	L1.	L1.	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05AB0060
BELLY RIVER AT HWY 6, WATERTON LAKES NATIONAL PARK, ALBERTA

LAT. 49D 3M 8S LONG. 113D 41M 7S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	08101W OXYGEN DISSOLVED DO O2 MG/L	06301L CARBONATE (CALCD.) CO3 MG/L	10151L ALKALINITY PHENOL PHTHALEIN CACO3 MG/L	08201L BICARBONT. (CALCD.) HCO3 MG/L	10101L ALKALINITY TOTAL CACO3 MG/L	20103L CALCIUM DISSOLVED CA MG/L	12102L MAGNESIUM DISSOLVED MG MG/L	10602L HARDNESS TOTAL (CALCD.) CACO3 MG/L
80-01-23	1845	3	12.3	--	0.0	--	--	27.80	11.9	118.4
80-02-20	1710	3	11.5	0.	0.0	93.	76.0 06L	28.00	13.5	125.5
80-03-20	1545	3	12.6	0.	0.0	112.	92.0 06L	25.00	12.3	113.1
80-04-17	1100	3	10.7	0.	0.0	171.	140.0	29.50	12.5	125.1
80-05-15	0830	3	10.9	0.	0.0	94.	77.0	19.90	8.1	83.0
80-06-11	1430	3	9.1	0.	0.0	89.	73.0	19.00	8.0	80.4
80-07-16	1445	3	9.6	0.	0.0	102.	84.0	21.30	8.7	89.0
80-08-07	1300	3	9.3	0.	0.0	109.	89.0	22.90	10.0	98.4
80-09-17	1330	3	9.6	0.	0.0	104.	85.0	22.50	10.5	99.4
80-10-22	1445	3	11.0	0.	0.0	111.	91.0	23.70	9.5	98.3
80-11-26	1530	3	12.0	0.	0.0	122.	100.0	26.80	11.3	113.4
80-12-10	1510	3	10.4	0.	0.0	128.	105.0	27.50	11.6	116.4
81-01-21	1430	3	11.6	0.	0.0	133.	109.0	24.10	9.5	99.3
81-02-18	1515	3	11.9	0.	0.0	134.	110.0	27.90	12.8	122.4
81-03-11	1330	3	12.2	0.	0.0	145.	119.0	31.80	12.9	132.5
81-04-09	0955	3	12.5	0.	0.0	148.	121.0	32.50	14.5	140.9
81-05-14	0830	3	10.9	0.	0.0	123.	101.0	26.50	10.5	109.4
81-06-03	1400	3	9.8	0.	0.0	99.	81.0	22.50	9.2	94.1
81-07-03	1015	3	9.8	0.	0.0	94.	77.0	19.80	8.0	82.4
81-08-19	1235	3	8.9	0.	.1	108.	88.0	21.70	7.7	85.9
81-09-24	0715	3	10.1	0.	0.0	120.	98.0	25.30	10.5	106.4
81-10-21	1240	3	12.0	0.	0.0	134.	110.0	28.40	12.3	121.6
81-11-18	1330	3	11.8	0.	0.0	116.	95.0	23.70	10.2	101.2
81-12-17	1245	3	13.0	0.	0.0	128.	105.0	28.20	11.5	117.8

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	00201L TOTAL DISSOLVED SOLIDS (CALCD.) MG/L	11103L SODIUM DISSOLVED NA MG/L	19103L POTASSIUM DISSOLVED K MG/L	17206L CHLORIDE DISSOLVED CL MG/L	09105L FLUORIDE DISSOLVED F MG/L	16306L SULPHATE DISSOLVED SO4 MG/L	14105L SILICA REACTIVE SIO2 MG/L	16104P SULFIDE DISSOLVED S MG/L
80-01-23	1545	3	--	.9	.1	.3	L.05	7.	3.6	--
80-02-20	1710	3	101.	1.4	.3	.5	L.05	8.	3.5	--
80-03-20	1545	3	105.	1.4	.3	.4	.05	7.	3.5	--
80-04-17	1100	3	141.	1.5	.4	.4	.06	9.	3.8	--
80-05-15	0830	3	84.	.9	.2	.3	L.05	5	3.4	--
80-06-11	1430	3	81.	.9	.2	.3	L.05	5.	3.4	--
80-07-16	1445	3	90.	1.0	.2	.2	L.05	5.	3.2	--
80-08-07	1300	3	98.	1.9	2	1.2	.05	5.	3.3	--
80-09-17	1330	3	95.	1.0	.2	.2	L.05	6.	3.3	--
80-10-22	1445	3	98.	.7	.2	.2	.06	4.	3.2	--
80-11-26	1530	3	108.	1.3	.2	.3	L.05	5.	3.5	--
80-12-10	1510	3	114.	1.5	.2	.3	.07	6.	3.6	--
81-01-21	1430	3	113.	1.1	.3	.4	.07	8.	4.1	--
81-02-18	1515	3	120.	1.4	.3	.3	.06	7.	3.9	--
81-03-11	1330	3	132.	1.8	.3	.5	.09	9.	3.8	--
81-04-09	0955	3	0136.	1.4	.4	L.1	L.05	10.	4.0	--
81-05-14	0830	3	111.	1.3	.3	.3	L.05	7.	4.1	--
81-06-03	1400	3	91.	1.1	.2	.2	L.05	5.	3.8	--
81-07-03	1015	3	83.	.8	.2	.4	L.05	4.	3.1	--
81-08-19	1235	3	91.	.7	.2	.3	L.05	4.	3.0	--
81-09-24	0715	3	104.	1.0	.2	.2	L.05	5.	3.4	--
81-10-21	1240	3	118.	1.2	.2	.2	.05	7.	3.2	--
81-11-18	1330	3	101.	1.0	.2	.2	L.05	5	3.4	--
81-12-17	1245	3	115.	1.2	.2	.3	L.05	7.	3.4	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05AD0080
BELLY RIVER AT HWY 5, WATERTON LAKES NATIONAL PARK, ALBERTA

LAT. 49D 3M 6S LONG. 113D 41M 7S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	15406L PHOSPHORUS TOTAL P MG/L	15103D PHOSPHORUS TOTAL DISSOLVED P MG/L	15901L PHOSPHORUS PARTICULATE (CALCD.) P MG/L	07110D NITROGEN DISSOLVED NO3 & NO2 N MG/L	07551D NITROGEN DISSOLVED N MG/L	07651L NITROGEN DISSOLVED N MG/L	07902L NITROGEN PARTICUL. N MG/L	07503L NITROGEN TOTAL (CALCD.) N MG/L
80-01-23	1645	3	L.003	L.003 03L	00.000	.41 10L	--	.38	.03	.41
80-02-20	1710	3	L.003	L.003 03L	00.000	.13 10L	--	.15	.02	.17
80-03-20	1545	3	.100	.005 03L	.095	.10 10L	--	.14	.02	.16
80-04-17	1100	3	.014	.003	.011	.10	.15	.14	L.01	Q.15
80-05-15	0830	3	.004	L.003	Q.001	.15	.15	.18	L.01	Q.19
80-06-11	1430	3	.033	.003	.030	.11	.15	.13	.13	.26
80-07-16	1445	3	.003	L.003	00.000	.12	.12	.12	.03	.15
80-08-07	1300	3	L.003	L.003	00.000	.11	.12	.12	.06	.18
80-09-17	1330	3	L.003	L.003	00.000	.07	.10	.10	.05	.15
80-10-22	1445	3	L.003	L.003	00.000	.08	.10	.17	.04	.21
80-11-26	1530	3	L.003	L.003	00.000	.10	.13	.14	L.01	Q.15
80-12-10	1510	3	.003	.003	0.000	.10	.11	.12	L.01	Q.13
81-01-21	1430	3	L.003	L.003	00.000	.12	.12	.12	L.01	Q.13
81-02-18	1515	3	.005	.005	0.000	.11	.15	.13	.05	.18
81-03-11	1330	3	L.003	L.003	00.000	.13	.14	.14	L.01	Q.15
81-04-08	0855	3	L.003	L.003	00.000	.09	.11	.13	L.01	Q.14
81-05-14	0830	3	.004	L.003	Q.001	.11	.14	.16	L.01	Q.17
81-06-03	1400	3	.019	L.003	Q.016	.12	.14	.14	.04	.18
81-07-03	1015	3	.010	.004	.006	.11	.13	.12	.02	.14
81-08-19	1235	3	L.003	--	--	.08	.10	.12	L.01	Q.13
81-09-24	0715	3	L.003	L.003	00.000	.08	.12	.12	L.01	Q.13
81-10-21	1240	3	L.003	L.003	00.000	.09	.11	.10	L.01	Q.11
81-11-18	1330	3	.005	L.003	Q.002	.05	.09	.09	L.01	Q.10
81-12-17	1245	3	.003	L.003	00.000	.08	.09	.09	L.01	Q.10

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07506P NITROGEN TOTAL AMMONIA N MG/L	15256D PHOSPHORUS DISSOLVED ORTHO PO4 P MG/L	06152L CARBON DISSOLVED INORGANIC C MG/L	06104L CARBON DISSOLVED ORGANIC C MG/L	06902L CARBON ORGANIC PARTICUL. C MG/L	06002L CARBON TOTAL ORGANIC (CALCD.) MG/L	03301P LITHIUM EXTRBLE. LI MG/L	13302P ALUMINUM EXTRBLE. AL MG/L
80-01-23	1645	3	--	--	23.0	1.0	.05	1.1	--	--
80-02-20	1710	3	--	--	21.0	1.0	.05	1.1	--	--
80-03-20	1545	3	--	--	18.0	1.0	.07	1.1	--	--
80-04-17	1100	3	--	--	--	2.0	--	--	--	--
	1100	3	--	--	--	2.0 04D	--	--	--	--
80-05-15	0830	3	--	--	--	1.0 04D	--	--	--	--
80-06-11	1430	3	--	--	--	1.0 04D	1.40	2.4	--	--
80-07-16	1445	3	--	--	--	L1.0 04D	.40	Q1.4	--	--
80-08-07	1300	3	--	--	--	L1.0 04D	.17	Q1.2	--	--
80-09-17	1330	3	--	--	--	L1.0 04D	.28	Q1.3	--	--
80-10-22	1445	3	--	--	--	L1.0 04D	.19	Q1.2	--	--
80-11-26	1530	3	--	--	--	L1.0 04D	.22	Q1.2	--	--
80-12-10	1510	3	--	--	--	L1.0 04D	.20	Q1.2	--	--
81-01-21	1430	3	--	--	--	L1.0 04D	.09	Q1.1	--	--
81-02-18	1515	3	--	--	--	1.0 04D	.12	1.1	--	--
81-03-11	1330	3	--	--	--	L1.0 04D	.10	Q1.1	--	--
81-04-08	0855	3	L.1	--	--	--	.08	--	--	--
81-05-14	0830	3	L.1	--	--	1.2	.25	1.5	--	--
81-06-03	1400	3	L.1	--	--	1.1	.49	1.6	--	--
81-07-03	1015	3	L.1	--	--	.9	.23	1.1	--	--
81-08-19	1235	3	L.1	--	--	.5	.12	.6	--	--
81-09-24	0715	3	L.1	--	--	.2	.11	.3	--	--
81-10-21	1240	3	L.1	--	--	.6	.09	.7	--	--
81-11-18	1330	3	L.1	--	--	.8	.09	.9	--	--
81-12-17	1245	3	L.1	--	--	.8	.10	.9	--	--

DETAILED WATER QUALITY DATA 1980-1981
ALBERTA

STATION - 00AL05AD0080 LAT. 49D 3M 8S LONG. 113D 41M 7S
BELLY RIVER AT HWY 6, WATERTON LAKES NATIONAL PARK, ALBERTA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	05105L BORON DISSOLVED B MG/L	33104D ARSENIC DISSOLVED AS MG/L	34102D SELENIUM DISSOLVED SE MG/L	25304P MANGANESE EXTRBLE. MN MG/L	25104G MANGANESE DISSOLVED MN MG/L	26304P IRON EXTRBLE. FE MG/L	26104G IRON DISSOLVED FE MG/L	80011P MERCURY TOTAL HG UG/L
80-01-23	1645	3	L.02	L.0005 04L	L.0005 02L	--	--	--	--	L.02
80-02-20	1710	3	.03	L.0005 04L	L.0005 02L	--	--	--	--	L.02
80-03-20	1545	3	L.02	L.0005 04L	L.0005 02L	--	--	--	--	L.02
80-04-17	1100	3	.03	L.0005	L.0005	--	.01	--	L.04	L.02
80-05-15	0930	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-06-11	1430	3	.03	L.0005	L.0005	--	L.01	--	L.04	.03
80-07-16	1445	3	.03	L.0005	L.0005	--	.01	--	L.04	.03
80-08-07	1300	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-08-17	1330	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
80-10-22	1445	3	L.02	L.0005	L.0005	--	L.01	--	L.04	L.02
80-11-26	1530	3	.04	L.0005	L.0005	--	.01	--	L.04	L.02
80-12-10	1510	3	.04	L.0005	L.0005	--	L.01	--	L.04	L.02
81-01-21	1430	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-02-18	1515	3	.04	L.0005	L.0005	--	L.01	--	.04	L.02
81-03-11	1330	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-04-09	0955	3	.03	L.0005	L.0005	--	--	--	L.04	L.02
81-05-14	0830	3	.03	L.0005	.0018	--	L.01	--	L.04	L.02
81-06-03	1400	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-07-03	1015	3	.03	L.0005	L.0005	--	L.01	--	L.04	L.02
81-08-19	1235	3	.02	L.0005	L.0005	--	L.01	--	L.04	L.02
81-09-24	0715	3	.02 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-10-21	1240	3	.05 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-11-18	1330	3	.02 05D	L.0005	L.0005	--	L.01	--	L.04	L.02
81-12-17	1245	3	.03 05D	L.0005	L.0005	--	L.01	--	L.04	L.02

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

POOR

QUALITY

ORIGINAL